Commonwealth of Massachusetts
Executive Office of Health and Human Services

RY2009 Technical Specifications Manual for Appendix G Measures Reporting (Version 2.1)

February 2, 2009

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Section 1: Introduction

The Massachusetts Executive Office of Health and Human Services (EOHHS) provides this manual as a supplement to the Rate Year 2009 Acute Hospital RFA contract. The **EOHHS Measures Technical Specifications Manual** contains information to assist Hospitals with implementation of the RY2009 Appendix G quality reporting required under the MassHealth Hospital Pay-for-Performance (P4P) Initiative.

To minimize reporting burden every effort has been made to align Appendix G quality reporting requirements with national standards for hospital measurement and reporting systems endorsed and supported by the Centers for Medicare and Medicaid Services (CMS), The Joint Commission (TJC) and other stakeholder groups involved with hospital quality measurement.

A. Using the Specifications Manual

This manual is intended to be used in conjunction with the other existing national technical specifications manuals posted on the QualityNet, The Joint Commission, and Leapfrog Group public websites. Hospitals are responsible for accessing all published national specification manuals and updated release notes available for community acquired pneumonia, surgical care infection prevention, neonatal and pediatric asthma care measures that apply to Appendix G reporting requirements.

This manual is designed to be used as a reference guide and provides information on:

- Revised standards for data collection and submission guidelines on measures data reporting required in RY2009 Appendix G;
- Specifications for clinical inpatient measures not available in national specifications manuals;
- Appendices that contain materials to support MassHealth data collection and reporting; and
- Modified instructions that apply to collecting and submitting clinical measures data being reported to national hospital quality reporting programs;

EOHHS reserves the right to make changes to specifications contained in this manual during the RY2009 to improve reliability and accuracy of data measurement and reporting as needed. Hospitals will be notified of any updates and/or supplements to this manual via the EOHHS designated email listed below. Updated manuals and/or supplements issued during RY2009 are also posted on the MassHealth Quality Exchange (MassQEX) website: http://www.mass.gov/masshealth/massqex "Specifications Manual" tab.

The MassHealth Hospital Pay-for-Performance (P4P) Initiative is operated by the Massachusetts Executive Office of Health and Human Services MassHealth Office of Acute and Ambulatory Care. For questions about the RY2009 Acute Hospital RFA Appendix G measures reporting requirements please contact:

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The EOHHS Contractor that will provide support with the implementation of performance measures data collection, analysis and reporting required during the RY2009 is Masspro, Inc.

B. Enhancements to Version 2.1

The information contained in **RY2009 EOHHS Measures Technical Specifications Manual (2.1)** supersedes all information in previously published manuals. The changes made in version 2.1 are reflected as underlined text throughout all sections of the manual and noted as follows:

Section	Description of Change	Rationale	Page
1	No changes	----	---
2	**Data Collection Guidelines** – updated all references to Specifications Manual for NHQM version 2.5a to 2.5b throughout entire EOHHS manual including Section 2.A.	Update	**3**
3	**Measure Specifications** – revised MAT-1 second bullet of Data Elements list, added antibiotic name on Data collection approach sub-header and inserted reference to measure rule under 'Data reported as' sub-header (p.7). Revised note in dialogue box on MAT-1 measure flow algorithm (p.12). Inserted reference to MAT-2 measure rule under 'Data reported as' sub-header(p.16), and revised note in dialogue box on MAT-2 measure flow algorithm (p.21). Edited Section 3C.1 specs text (p.22) and add measure rules at end of pages and Sections D.1a. Updated references to NHQM manual version from 2.5a to 2.5b (p.28)	Clarify, Update	**7, 12, 16, 21, 22, 28**
4	**Measure Population and Sampling** – edited Section 4.D last paragraph.	Clarify	**31**
5	**Data Transmission Guidelines** – edited Section 5B.3& 4 text instructions for reporting ICD data, portal production rules & schedules. Edited Section 5D2.c on portal notices, and updated references to NHQM manual from version 2.5a to 2.5b.	Clarify, Update	**32, 33, 35**
6	**Health Disparities Measure Specifications** – edited text in Section 6.A, to clarify language in last paragraph.	Clarify	**36**
7	**Data Validation Methods** – edited text in Section 7A.5 + 6c; and 7B.5. Added episode of care data element in Table 7.1(non-scored category column. Edited text in 7C.1[a+b], 7C.2.a and 7C.4.a2.	Clarify	**39, 40, 41**
8	**Data Dictionary** – Added text to clarify data sources listed in all data dictionaries. Updated references to Specifications Manual for NHQM version 2.5a to 2.5b	Clarify, Update	**42**
Appendix			
A-1	**Race/Ethnicity Crosswalk**- updated reference to NHQM manual from vers 2.5a to 2.5b	Update	**43**
A-2	**Data Abstraction Tool (MAT1**) – edited reference to time frame on Q.8 to 'during intra-partum period'. Change number sequence for Q.19 to 18 (b)	Update	**47, 48**
A-3	**Data Abstraction Tool (MAT2**)- changed number sequence for Q.15.b to 15.a and for Q.16 to 15.b.	Update	**51**
A-4	No changes	-----	-------
A-5	No changes	-----	-------
A-6	**MassHealth ICD Population Data Form** – edited all text and added screenshot	Update	**58**
A-7	No changes	-------	-------
A-8	No changes	-------	A-8 to A-11 Separate Excel and PDF files
A-9	No changes	-------	
A-10	No changes	-------	
A-11	No changes	-------	
A-12	**Data Dictionary (MAT-1 & MAT-2**) – edited TOC footnotes, inserted Episode of Care data element definition & repaginated section. Added text under "Allowable Values' and 'Notes for Abstraction' header under Ethnicity, Hispanic indicator and Race data elements.	New insert & Clarify	A-12 to A15 Each separately paged PDF files
A-13	**Data Dictionary (NICU-1)** - edited TOC footnotes, inserted Episode of Care data element definition & repaginated section. Added text under "Allowable Values' and 'Notes for Abstraction' header under Ethnicity, Hispanic indicator and Race data elements.	New insert & Clarify	
A-14	**Data Dictionary (CAC-1a & CAC-2a)** - edited TOC footnotes, inserted Episode of Care data element definition & repaginated section. Added text under "Allowable Values' and 'Notes for Abstraction' header under Ethnicity, Hispanic indicator and Race data elements.	New insert & Clarify	
A-15	**Data Dictionary (MassHealth Crosswalk File)** – edited TOC footnotes, inserted Episode of Care data element definition & repaginated section. Added text under "Allowable Values' and 'Notes for Abstraction' header under Ethnicity, Hispanic indicator and Race data elements.	New insert & Clarify	
A-16	**Measure Rules:** Added calculation rules for MAT-1, MAT-2, and NICU measures	New insert	Separate PDF file

Footnote (Headers provide the following information):

- *Section* – identifies the key sections that make up the main text of the manual.
- *Description of change* –brief explanation of edits made to text (add/expand, delete, correct, modify).
- *Rationale* –states reason for change included in this version of the manual (new insert, clarify).
- *Page* – lists page number in manual or appendix where changes were made.

Section 2. Data Collection Guidelines

This section provides information on the data collection standards that apply to all measures reporting requirements. Hospitals are required to collect and report data on all the measure sets they are eligible to report on based on ICD patient population mix served and the type of service offered by the facility (i.e.: obstetrics, neonates, pediatrics, etc.).

A. Required Measure Sets. The MassHealth P4P measure sets are summarized in Table below.

Table 2.1. MassHealth P4P Measure Sets

Measure ID #	Measurement Category and Name	Specifications Manual Reference
	Maternity/Neonate	
MAT-1	Intrapartum Antibiotic Prophylaxis for Group B Streptococcus	EOHHS Manual
MAT-2	Perioperative Antibiotics for Cesarean Section	EOHHS Manual
NICU-1	Neonatal Intensive Care – Administration of Antenatal Steroids	Leapfrog & EOHHS
	Pediatric Asthma	
CAC-1a	Children's Asthma Care - Inpatient Use of Relievers	EOHHS, NHQM and TJC Manuals
CAC-2a	Children's Asthma Care - Inpatient Use of Corticosteroids	
	Surgical Care Infection Prevention	
SCIP-1a	Prophylactic antibiotic received within 1 hour prior to surgical incision	NHQM and EOHHS Manuals
SCIP-2a	Appropriate antibiotic selection for surgical prophylaxis	
SCIP-3a	Prophylactic antibiotic discontinued w/in 24 hrs after surgery end time	
	Community Acquired Pneumonia	
PN-1	Oxygenation assessment	NHQM and EOHHS Manuals
PN-3b	Blood culture performed in ED prior to first antibiotic received in hospital	
PN-4	Adult smoking cessation advice/counseling	
PN-5c	Initial antibiotic received within 6 hrs of hospital arrival	
PN-6	Appropriate antibiotic selection for CAP in immuno-competent patients	
	Health Disparities	
HD-1	CLAS Measure	EOHHS Manual and All above
HD-2	Clinical inpatient measures (MAT, NICU, CAC, SCIP, PN)	

As noted in the Table 2.1, specifications for each of the measures are contained in the following manuals:

- ***EOHHS Technical Specifications Manual for Appendix G Measures Reporting (2.1).***
- ***Specifications Manual for the National Hospital Quality Measures*** **(NHQM) versions 2.3b, 2.4b, *2.5b*** and relevant release notes available at URL: http://www.qualitynet.org
- The Joint Commission (TJC) ***Current Specifications Manual for the National Hospital Quality Measures*** **versions 2.3b, 2.4b, 2.5b,** and relevant release notes available at URL: http://www.jointcommission.org
- ***Leapfrog Group Nationally Endorsed Process Measures Specifications*** **(version 5.0.2)** and relevant updates available at URL: https://leapfrog.medstat.com/pdf/process.pdf

Hospitals are responsible for accessing and adhering to data collection instructions contained in the appropriate versions of the specifications manuals listed above, including any updates associated with changes to measure specifications, that apply to discharge data quarters being reported for RY2009 Appendix G requirements.

B. General Data Elements: Hospitals must report the general clinical and administrative data elements (e.g.: ICD codes, payer source, race, ethnicity) commonly required to calculate all measurement rates and category assignments. The national common framework that define the general data elements applicable to all inpatient measurement are outlined in *Specifications Manual of NHQM* and adapted in the EOHHS Technical Specifications Manual, wherever possible, to minimize data collection burden. Hospitals are responsible for modifying data elements when preparing data files using the data dictionaries and other resources provided in this manual.

C. MassHealth Identifier Data Elements. Specific administrative data elements that link the Hospitals' patient identifier codes to MassHealth unique patient identifier codes are required. These data elements are required for EOHHS to make incentive payments on MassHealth discharges and to evaluate clinical health disparities. The MassHealth unique identifier data elements are defined below.

1) Medicaid Payer Source*:* The MassHealth population covered under the Acute Hospital RFA, to be included in the measure population, are those members where Medicaid is the primary payer and/or when no other insurance is present as follows:

- **Included Member Population**:
  a) Members with payer codes 103 and 104 that must be listed as either the primary code and/or only payer code. These codes represent services paid on a fee-for-service basis.
  b) Members with payer code 104 are covered under the Primary Care Clinician (PCC) Plan;
  c) Members with payer code 103 are not covered under the PCC Plan. This code also captures members under "MassHealth Limited" benefits coverage.

- **Excluded Member Population**:
  a) Members enrolled in any of the four MassHealth managed care plans (Boston Medical Health Net, Network Health, Fallon Community, Neighborhood Health Plan);
  b) Dually eligible status (covered by Medicaid and Medicare);
  c) Third-party liability status (covered by Medicaid and/or an HMO or Commercial plan);
  d) Members covered by payer code 98 (Healthy Start) or code 144 (CMSP); and
  e) Members age 65 and over.

The Medicaid payer source codes assigned by the Massachusetts Division of Healthcare Finance and Policy (DHCFP) provided below should be used when preparing data files for submission.

Table 2.2. Massachusetts DHCFP Medicaid Payer Codes

Payer Code	Medicaid Payer Source Description	Electronic Data File
103	**Medicaid --- includes MassHealth**	**Included Primary Payer Codes**
104	**Medicaid Managed Care - Primary Care Clinician (PCC) Plan**	
106	Medicaid Managed Care-Central Mass Health Care	**Excluded Payer Codes** (Portal will reject all data files with these payer codes submitted as the primary payer**)**
107	Medicaid Managed Care-Community Health Plan	
108	Medicaid Managed Care- Fallon Community Health Plan	
109	Medicaid Managed Care- Harvard Community Health Plan	
110	Medicaid Managed Care- Health New England	
111	Medicaid Managed Care- HMO Blue	
112	Medicaid Managed Care- Kaiser Foundation Plan	
113	Medicaid Managed Care- Neighborhood Health Plan	
114	Medicaid Managed Care- United Health Plans of NE (Ocean State Physician's Plan)	
115	Medicaid Managed Care- Pilgrim Health Care	
116	Medicaid Managed Care- Tufts Associated Health Plan	
118	Medicaid Mental Health & Substance Abuse Plan- Mass Behavioral Health Partnership	
119	Medicaid Managed Care Other (not listed elsewhere)	
98	Healthy Start	
144	Other Government -includes but not limited to Children's Medical Security Plan (CMSP)	

Source: Massachusetts Division of Health Care Finance Policy Hospital Inpatient Discharge Data. Electronic Records Submission Specifications. September 2006. Available at URL: http://www.mass.gov/Eeohhs2/docs/dhcfp/g/regs/114_1_17_hdd_data_specs.pdf

The CMS Medicaid payer source data element definition used in the Specifications Manual for NHQM reporting differs from the DHCFP definitions. The CMS Medicaid payer code includes all populations covered under Title 19 (managed care and fee-for-service), whereas the DHCFP assignment of Medicaid payer codes in Table 2.2 are for services paid on a fee-for-service basis only under the Acute Hospital RFA. Modifications to the CMS Medicaid payer codes are required, using the MassHealth Identifier Crosswalk file, when preparing and reporting data on national hospital quality measures. Refer to **Section 5** of this manual for detailed instructions.

2) **Race and Ethnicity Data Elements**: The Massachusetts DHCFP regulation requires all Hospitals to collect and report hospital inpatient discharge data by race/ethnicity effective January 1, 2007. The DHCFP standards for collection, coding and reporting of race/ethnicity data elements and allowable values differ slightly from those required by CMS for national hospital quality measures reporting and the Boston Public Health Commission (BPHC) regulations.

   Hospitals must adhere to the Massachusetts DHCFP standards for reporting on the race/ethnicity data elements, and make appropriate adjustments, when preparing measures data files. This manual provides a Race/Ethnicity Data Element Crosswalk (***Appendix A-1)*** to facilitate identifying patient-level data files. Detailed definitions on the race/ethnicity data elements, acceptable codes and allowable values are provided in **Section 6** and all data dictionaries contained in this manual.

3) **Other Identifier Data Elements**. In addition to data elements listed above, other administrative data elements are essential to link the Hospitals' patient identifier codes to MassHealth patient identifier codes and are required for EOHHS to make incentive payments on MassHealth specific discharges. The list of additional data elements (i.e.: Hospital Bill Number, RID Number, Hospital Patient ID Number, other case level identifiers) including their definitions, codes, allowable values and formatting are contained throughout all data dictionaries provided in this manual.

D. Missing and Invalid Data. Missing data refers to data elements that have no values present for the records submitted whereas, invalid data refers to data element values that fall outside the range of allowable values defined by the measure specifications manuals. Reducing missing and invalid data is critical to minimizing the bias for a measure rate because this data: a) can not be included in the calculation of the observed measure rate; b) may not accurately reflect the observed measure rate for the patient population; and c) may contribute to mismatches between data elements that can affect the overall validation score. All abstraction of data must provide an answer to every data element that applies to each measure in a measure category.

E. XML File Format: All measures data must be collected using the Extensible Markup Language (XML) file format consistent with data transmission standards and guidelines provided in this and the *Specifications Manual of the NHQM*. Adherence to XML file format is important to decreasing variation in data collection and critical to data collection compliance. Failure to comply with the technical data format requirements described in this manual will result in data credited as not being received. EOHHS provides several XML schema formats (Excel file worksheets) to assist hospitals in preparing electronic data files for the maternity, neonate, pediatric asthma measures and MassHealth Crosswalk File, in ***Appendix A-8 to A-11*** of this manual.

F. Other Requirements:

1) **Data Abstraction Tools:** This manual provides several paper data abstraction tools to facilitate standardized collection of measures information for the maternity, neonate, and pediatric asthma data files in ***Appendix A-2 to A-5***. These tools are designed to be used in conjunction with the measure flowcharts, data dictionaries and XML schemas provided in this manual.

2) **Sampling:** Hospitals are required to submit a representative sample for all measures being reported using statistically sound methods. Detailed instructions to guide MassHealth sampling requirements are provided in **Section 4** of this manual.

3) **MassHealth ICD Patient Population Data:** Hospitals are required to provide information on the ICD patient population for each discharge quarter period being reported on submission due dates stated in RY2009 Appendix G. Refer to **Section 4** of this manual for detailed instructions on how to prepare and submit this information.

Section 3. Measures Specifications and Flowcharts

A. *Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (MAT-1)*

Description: Pregnant women who are eligible for and receive appropriate intrapartum antibiotic prophylaxis for Group B Streptococcus (GBS).

Rationale: Failure to provide prophylaxis to mothers of all ages who have screened positive for GBS or have other risk factors for GBS significantly increases the chances of GBS infection to the newborn and the risk of infant mortality. Administering timely antibiotic prophylaxis decreases the risk of infant infection, complications, readmissions, morbidity, and mortality.

Type of measure: Process measure

Improvement noted as: An increase in the rate

Numerator statement: All eligible patients who receive intrapartum antibiotic prophylaxis for GBS.

Included population: Not applicable

Excluded population: None

Data Elements: ***(list has been modified)***

- *Antibiotic Administration Date*
- *Antibiotic Administration Time*
- *Antibiotic Name for GBS Prophylaxis*
- *Delivery Date*
- *Delivery Time*
- *Intrapartum Antibiotics*
- *Maternal Allergies*
- *"Other" Antibiotic Documented for Prophylaxis*

Denominator statement: All women who deliver a live infant.

Included population: ICD-9 principal and secondary diagnosis codes for live births (as defined in Appendix A Tables 4.01, 4.02, 4.03, or 4.04 in the appropriate version of the *Specifications Manual for NHQM*). This population must be *further* defined on the basis of the following criteria.

- Previous infant with GBS disease,
- GBS bacteriuria during current pregnancy,
- Screened and tested positive at 35-37 weeks for vaginal and rectal GBS colonization, *or*
- Unknown GBS status (culture not done, incomplete or results unknown) and any of the following:
    - Delivery at < 37 weeks gestation
    - Amniotic membrane rupture ≥18 hours, *or*
    - Intrapartum temperature ≥100.4° F (38.0° C)

Excluded populations: ***(list has been modified)***

- Patients enrolled in a clinical trial during the hospital stay relevant to the measure population.
- Patient screened negative for GBS at 35-37 weeks of delivery.
- Patients delivering via planned Cesarean sections (in the absence of labor or amniotic membrane rupture).
- Patients who received an intravenous antibiotic for a pre-natal maternal infection or other non-GBS prophylaxis during the intrapartum period.
- Deliveries resulting in stillbirths identified by ICD-9-CM principal and secondary diagnosis codes (in any position) of V.27.1, V27.3, V27.4, V27.6, or V27.7.

Data Elements: ***(list has been modified)***

- *Amniotic Membrane Rupture 18 or More Hours*
- *Pre-natal Antibiotics for Infection (non-GBS)*
- *Clinical Trial*
- *Gestational Age < 37 Weeks*
- *Intrapartum Temp*
- *Live Newborn*
- *Planned Cesarean Delivery*
- *GBS Screening*

Risk adjustment: No

Data collection approach: Retrospective data sources for required data elements include administrative and medical records. Data is collected on the first administration of the intrapartum prophylactic antibiotic. Choices for the data element Antibioic Name for GBS Prophylaxis are limited to Ampicillin, Cefazolin, Clindamycin, Erythromycin, *Penicillin,* Vancomycin, or Other. Refer to MAT-1 data abstraction collection tool in ***Appendix A-2*** and data dictionary ***(Appendix A-12)*** of this manual for detailed instructions.

Data accuracy: Women may be receiving antibiotics at the time of delivery for a variety of reasons besides GBS prophylaxis. Hospitals may wish to pay particular attention to documenting these reasons, so that practice that deliberately differs from standards for good clinical reasons is not confused with failure to follow standards where they are applicable.

Measure analysis suggestion: Consideration may be given to relating this measure to antenatal screening and postnatal compliance with overall GBS guidelines. The process-owners for intrapartum GBS prophylaxis, as assessed in this measure, may include clinicians and support staff on the labor and delivery unit as well as the obstetrical admitting area. Opportunities may exist in any of these arenas which, when addressed jointly, can generate true process improvement. Attention should be given to possible decreases in infection rate and infant mortality, specifically changes over time for a total population and in underserved racial and ethnic groups.

Sampling: Yes. For additional information on sample size requirements refer to Section 4 of this manual.

Data reported as: Aggregate rate generated from count data reported as a proportion. Refer to ***Appendix A-16*** for the calculation rules that apply to this measure.

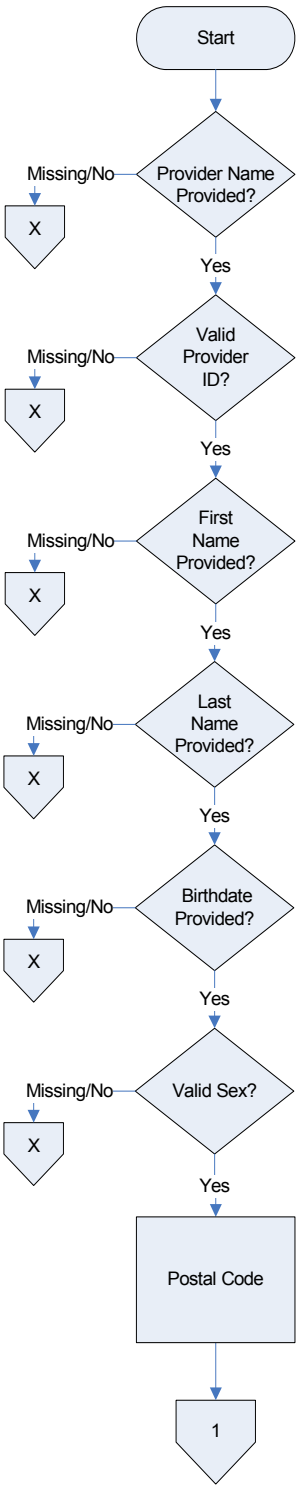
Selected References:

- Centers for Disease Control and Prevention. 2008. Active Bacterial Core Surveillance Report, Emerging Infections Program Network, Group B Streptococcus, 2007-provisional. Available via: http://www.cdc.gov/ncidod/dbmd/abcs/survreports/gbs07.pdf
- Matteson KA, Lievense SP, Catazaro B, Phipps MG. Intrapartum Group B Streptocci prophylaxis in patients reporting a penicillin allergy. Obstet Gynecol 2008; 111(2): 356-64
- Phares CR, Lynfield R, Farley MM, et al. Epidemiology of invasive Group B Streptococcal disease in the United States, 1999-2005. JAMA 2008; 299(17): 2056-2065
- Centers for Disease Control and Prevention. Perinatal Group B streptococcal disease after universal screening recommendations – United States, 2003-2005. MMWR 2007;56:701-05.
- Centers for Disease Control and Prevention. Early-onset and late-onset neonatal Group B streptococcal disease – United States, 1996-2004. MMWR 2205;54:1205-08.
- Colombo DF, Lew JL, Pedersen CA, Johnson JR, Fan-Havard P. Optimal timing of ampicillin administration to pregnant women for establishing bactericidal levels in the prophylaxis of Group B Streptococcus. Amer J Obstet Gynecol 2005; 194:466-70.
- Centers for Disease Control and Prevention. Diminishing racial disparities in early-onset neonatal Group B streptococcal disease – United States, 2000-2003. MMWR 2004;53:502-05.
- Centers for Disease Control and Prevention. Prevention of perinatal group B streptococcal disease. MMWR 2002;51:1-22.
- American College of Obstetricians and Gynecologists. Prevention of early-onset group B streptococcus in newborns. Obstet Gynecol 2002;100:1405-12.
- American Academy of Pediatrics. Committee on Infectious Diseases and Committee on Fetus and Newborn. Revised guideline for prevention of early-onset group B streptococcus (GBS) disease. Pediatrics 1997;99:489-96.
- Riley L, Appollon K, Haider S, Chan-Flynn S, Cohen A, Ecker J, Rein M, Lieberman E. "Real world" compliance with strategies to prevent early-onset group B streptococcal disease. J Perinatology 2003:23(4):272-7.

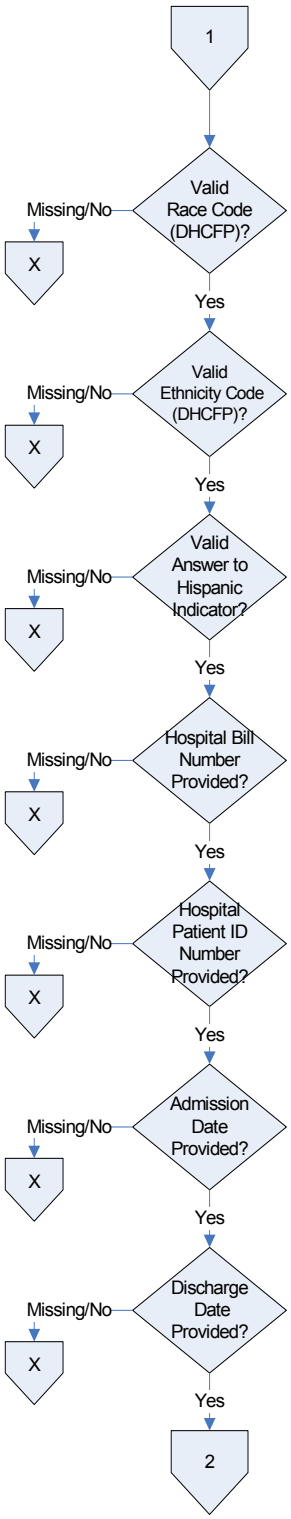
Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (MAT 1)

***Numerator:** All eligible patients who receive intrapartum antibiotic prophylaxis for GBS

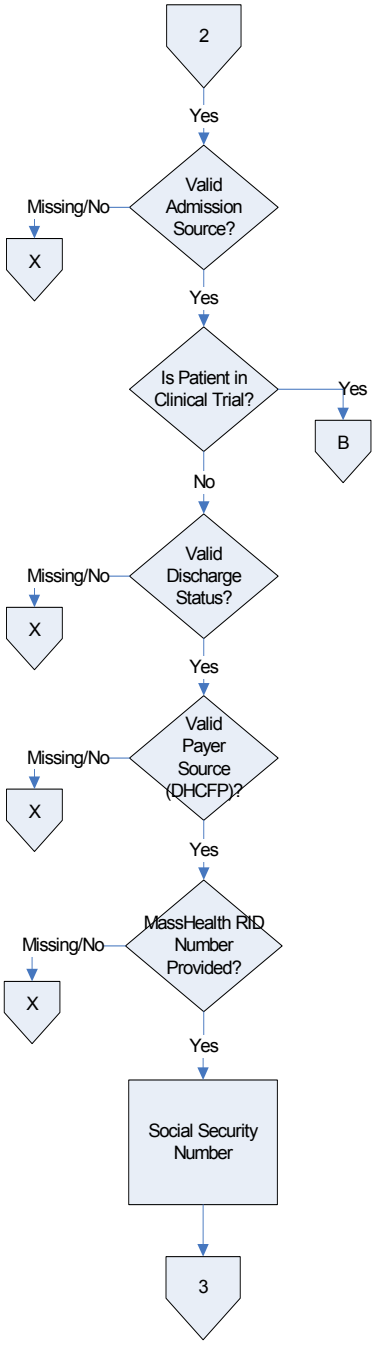
***Denominator:** All women who deliver a live infant



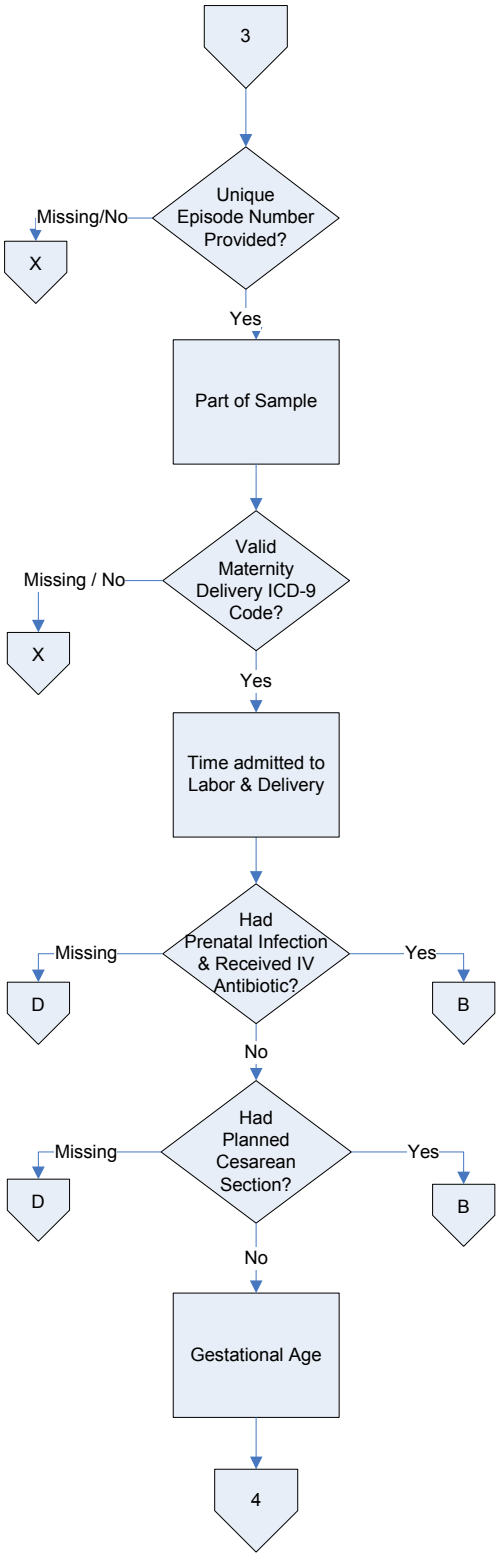
Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (MAT 1)



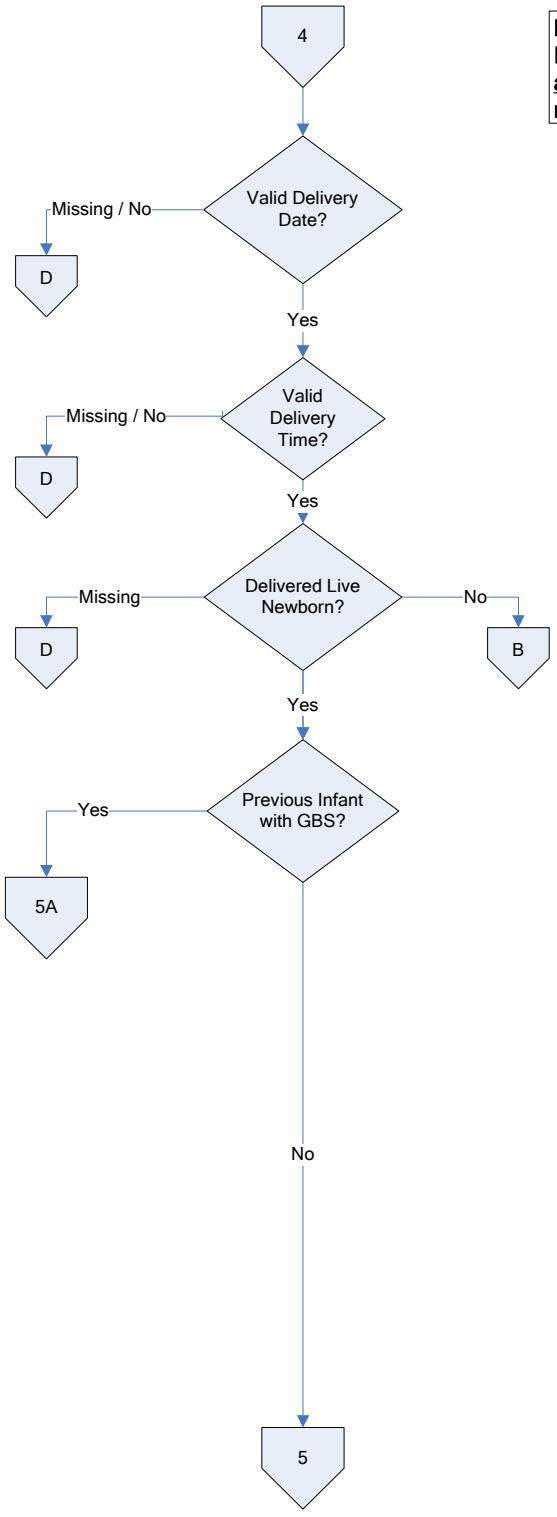
Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (MAT 1)



Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (MAT 1)

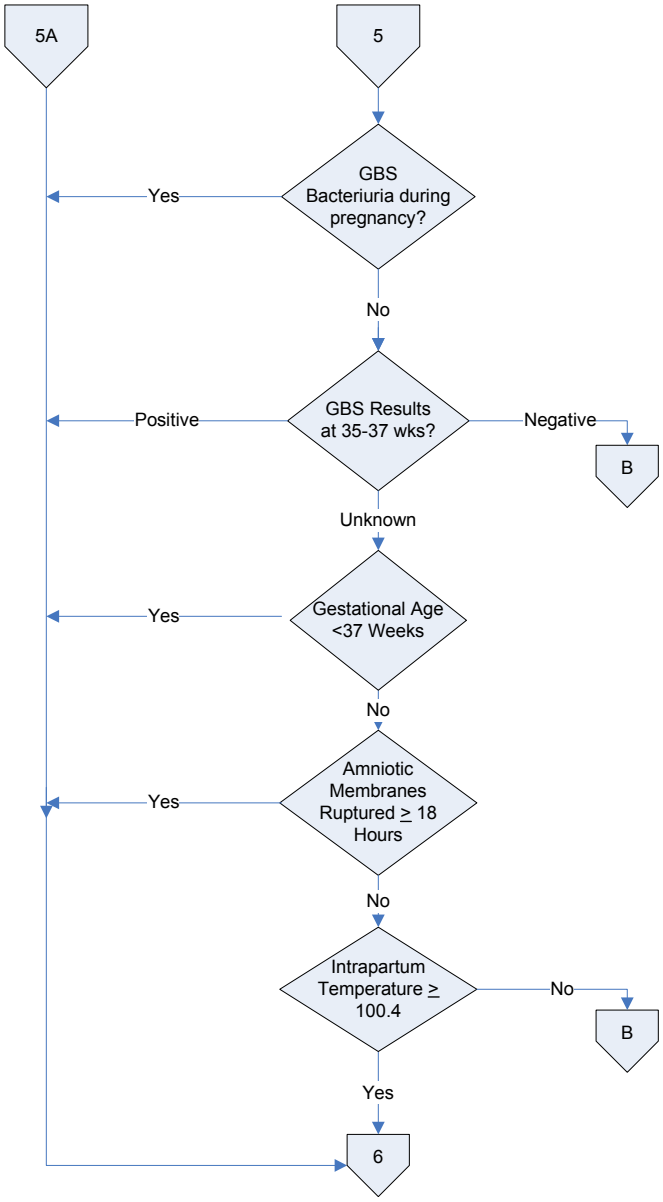


Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (MAT 1)

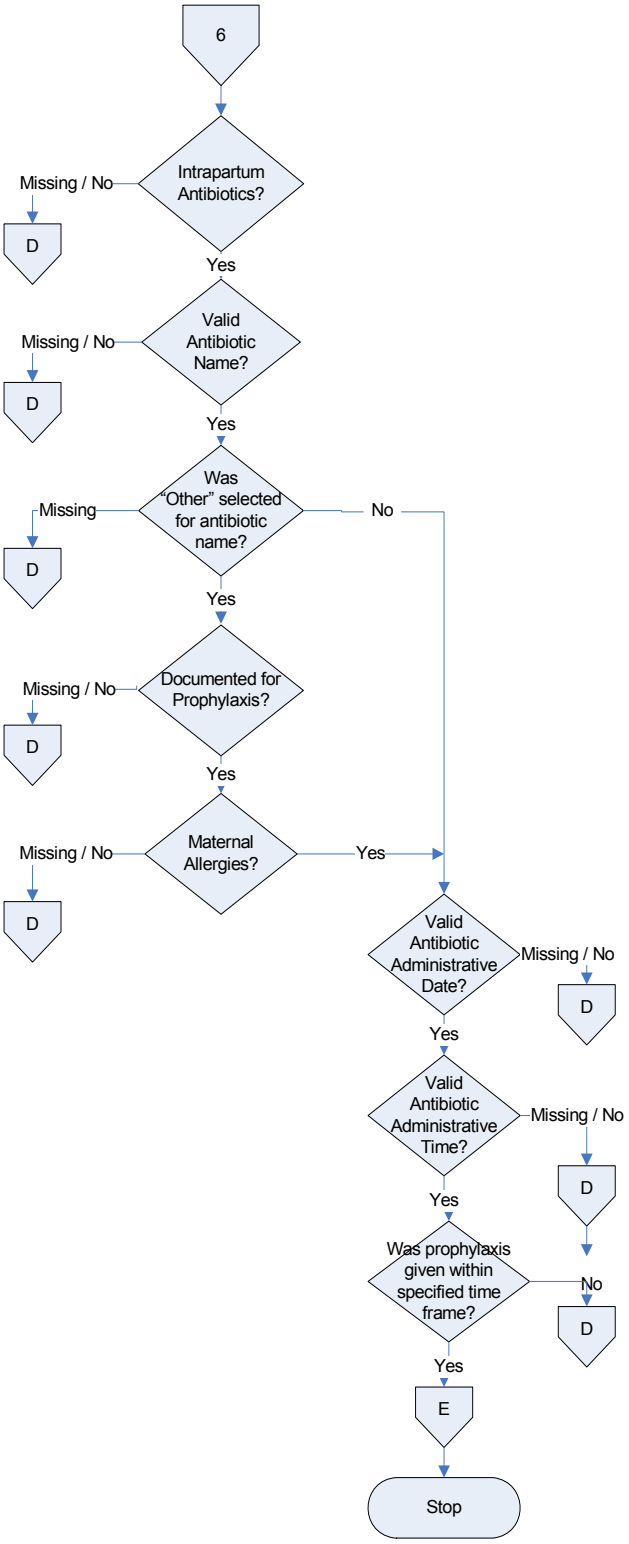


Note:
Infant delivery date must be <u>the same as or</u> after mother's admission date.

Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (MAT 1)



Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (MAT 1)



Note:
If the antibiotic prophylaxis is administered prior to infant delivery time, the case will be assigned to category E.

X

Review Ended
Not in Measure Population
Missing or Invalid Data
Case will be Rejected

B

Review Ended
Not in Measure Population
Excluded from Numerator and Denominator

D

Review Ended
In Measure Population
Excluded from Numerator
Included in Denominator

E

Measure Met
In Measure Population
Included in Numerator and Denominator

B. *Perioperative Antibiotics for Cesarean Section (MAT-2)*

Description: Patients undergoing Cesarean section who receive prophylactic intravenous antibiotics within one (1) hour prior to surgical incision up to five (5) minutes after the time of delivery.

Rationale: Delivery of prophylactic antibiotics within an hour prior to incision time is a well-established quality and safety practice. It reduces the risk of morbidity to the mother and decreases the overall cost of care by avoiding the expense of treating postoperative infections. Over 80 well-designed studies have documented the efficacy of prophylactic antibiotics in high-risk Cesarean sections (Smaill, F. and Hofmeyer, G.J. 1999; Hopkins, L and Smaill, F, 1999).

The American College of Obstetricians and Gynecologists recommends this practice both for high-risk and other Cesarean deliveries. An even larger body of evidence supports the use of prophylactic antibiotics for broad classes of surgery, including operative deliveries (Dellinger et al, 1994). The larger body of evidence is generally applicable to Cesarean delivery with the notable difference that an infant is being born as the mother is undergoing surgery.

Traditionally, many practitioners have preferred to defer administration of antibiotics until the time of delivery in order to avoid introducing unnecessary medications into the newborn's system, while others have found it safe and effective to administer the antibiotics shortly before the surgical incision. Current evidence and guidelines support either timing.

Type of measure: Process measure

Improvement noted as: An increase in the rate

Numerator statement: Number of patients who receive prophylactic intravenous antibiotics within one (1) hour prior to surgical incision up to five (5) minutes after the time of delivery.

Included population: Not applicable

Excluded population: None

Data Elements: ***(list has been modified)***

- *Antibiotic Administration Date*
- *Antibiotic Administration Time*
- *Antibiotic Name for Cesarean Section Prophylaxis*
- *Cesarean Section Incision Time*
- *Cesarean Section Start Date*
- *Delivery Date*
- *Delivery Time*
- *Intrapartum Antibiotics*
- *Maternal Allergies*
- *"Other" Antibiotic Documented for Prophylaxis*

Denominator statement: All patients undergoing Cesarean section.

Included population:

- An ICD-9-CM principal procedure code for Cesarean section that include **74.0** (classical Cesarean section), **74.1** (low cervical Cesarean section), **74.2** (extraperitoneal Cesarean section), **74.4** (Cesarean section of other specified type) or **74.99** (other Cesarean section of unspecified type).
- Patients receiving antibiotics for GBS prophylaxis

Excluded population: ***(list has been modified)***

- Patients enrolled in a clinical trial during the hospital stay relevant to the measure population.
- Patients who had a principal ICD-9-CM diagnosis code suggestive of preoperative infectious diseases (as defined in Appendix A Table 5.09 in the appropriate version of the Specifications Manual for National Hospital Quality Measures).
- Patients who were receiving intravenous antibiotics within 24 hours prior to surgery *except* prophylaxis for GBS, which is not a reason for exclusion.
- Patients with physician/advanced practice nurse/physician assistant/certified nurse midwife documented infection prior to Cesarean section.
- Patients who undergo other surgeries within 3 days before or after the Cesarean section during this hospitalization.

Data Elements: ***(list has been modified)***

- *Antibiotic Treatment for Prophylaxis within 24 Hours*
- *Clinical Trial*
- *Infection Prior to Cesarean Section*
- *Other Surgeries*

Risk adjustment: No

Data collection approach: Retrospective data sources for required data include administrative & medical record. Data is collected on the perioperative antibiotic for Cesarean section that is administered within the targeted time frame. Choices for the data element *Antibiotic Name for Cesarean Section Prophylaxis* are limited to Ampicillin, Cefazolin, Gentamycin, or Other. Refer to MAT-2 data abstraction collection tool in ***Appendix A-3*** and data dictionary **(*Appendix A-12)*** of this manual for detailed instructions.

Data accuracy: Women may be receiving antibiotics at the time of delivery for a variety of reasons besides prophylaxis against postoperative infections. Hospitals may wish to pay particular attention to documenting these reasons, so that practice that deliberately differs from standards for good clinical reasons is not confused with failure to follow standards where they are applicable.

Measure analysis suggestion: Improvement in compliance rates should be accompanied with decreases in the rate of postoperative infections.

Sampling: Yes. For additional information on sample size requirements refer to Section 4 of this manual.

Data reported as: Aggregate rate generated from count data reported as a proportion. Refer to ***Appendix A-16*** for the calculation rules that apply to this measure.

Selected References:

- Dellinger EP, Gross PA, Barrett TL et al. Quality standards for antimicrobial prophylaxis in surgical procedures. Clinical Infect Disease 1994;18:422-7.
- American College of Obstetricians and Gynecologists. Prophylactic antibiotics. ACOG Practice Bulletin No. 47. Obstet Gynecol 2003;102:875-82.
- Smaill F, Hofmeyr GJ. Antibiotic prophylaxis for cesarean section. Cochrane Database Sys Rev 2002;3:CD000933.
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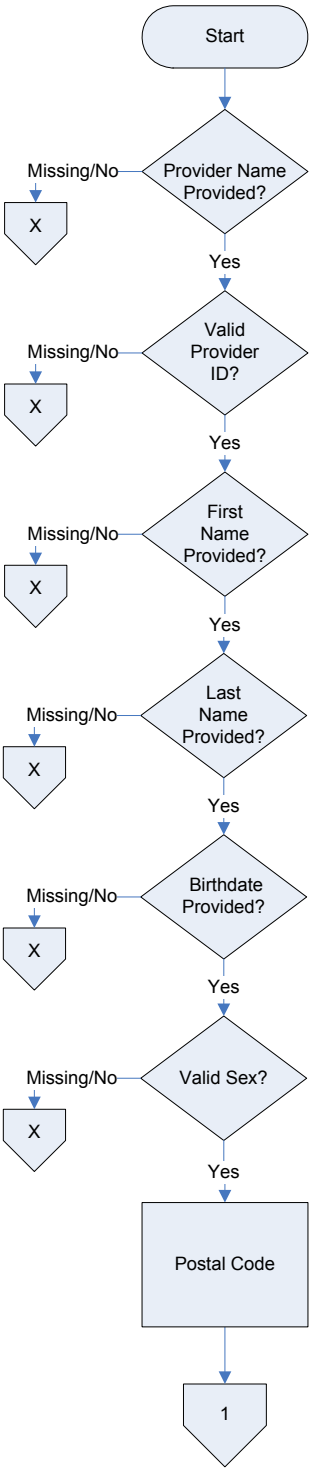
- Berghella V, Baxter JK, Chauhan SP. Evidence-based surgery for cesarean delivery. Amer Jnl of Obstet Gynecol 2005;193:1607-17.
- Chelmow D, Hennesy M, Evantash EG. Prophylactic antibiotics for non-laboring patients with intact membranes undergoing cesarean delivery: an economic analysis. Amer J Obest Gynecol 2004; 191: 1661-65.
- Sullivan SA, Smith T, Chang E, et al. Administration of cefazolin prior to skin incision is superior to cefazolin at cord clamping in preventing postcesarean infectious morbidity: a randomized, controlled trial. Am J Obstet Gynecol 2007;196;455.e1-455.e5.
- Thigpen BD, Hood WA, Chauhan S, Bufkin L, Bofill J, Magann E, Morrison JC. Timing of prophylactic antibiotic administration in the uninfected laboring gravida: a randomized clinical trial. Am J Obstet Gynecol 2006: 192:1864-8.
- Griffiths J, Demianczuk N, Cordoviz M, Joffe AM. Surgical site infection following elective Caesarian section: a case-control study of post discharge surveillance. J Obstet Gynaecol Can 2005:340-4.

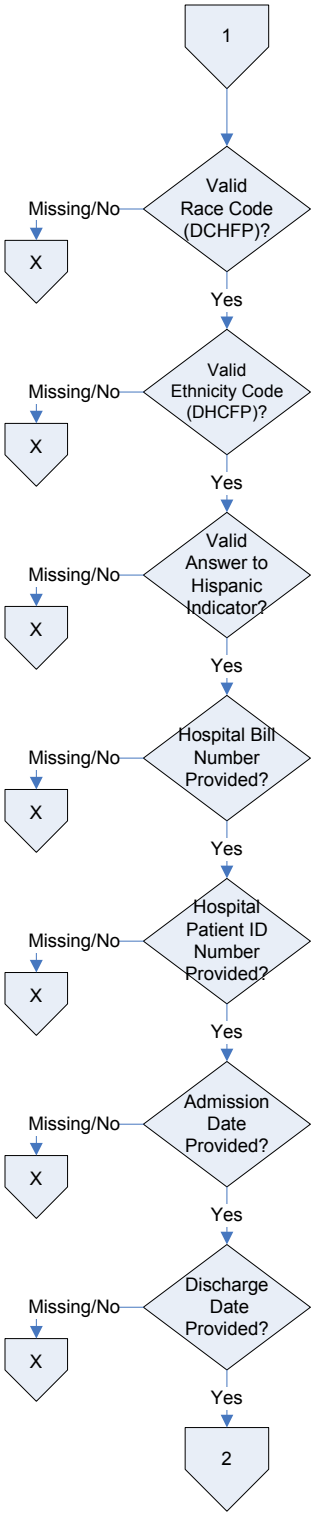
Perioperative Antibiotics for Cesarean Section (MAT 2)

***Numerator:** Number of patients who receive prophylactic antibiotics within one (1) hour prior to surgical incision up to five (5) minutes after time of delivery

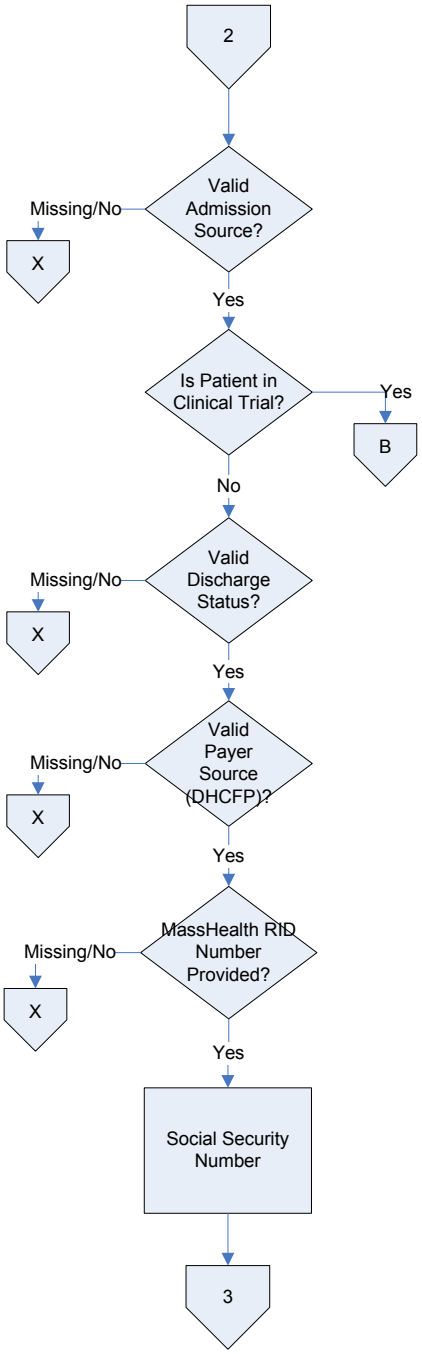
***Denominator:** All patients undergoing Cesarean section



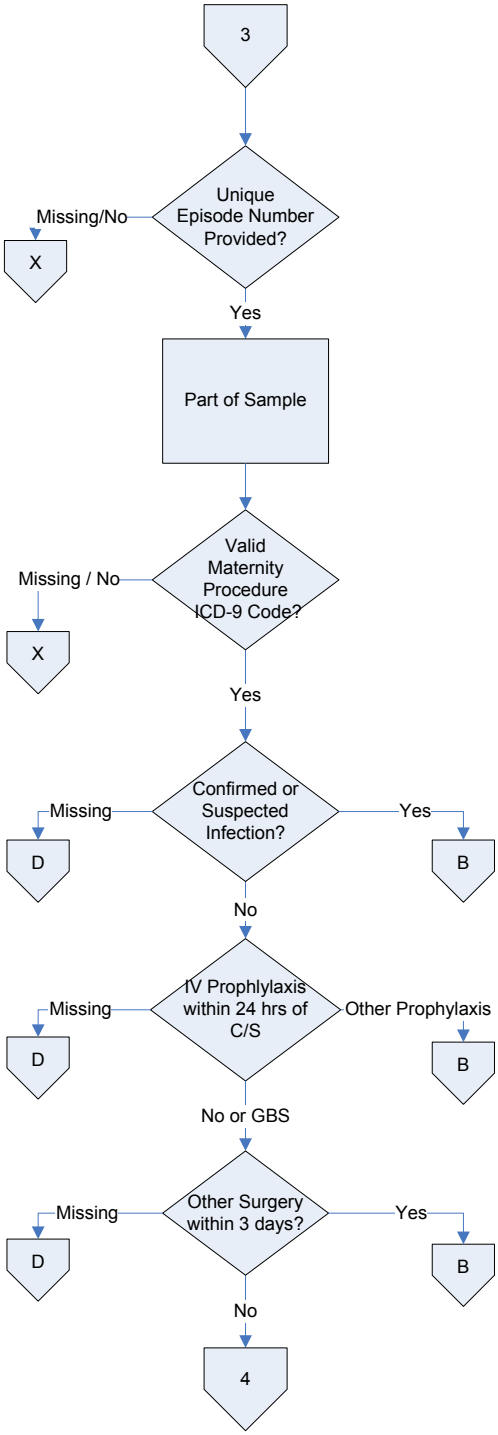
Perioperative Antibiotics for Cesarean Section (MAT 2)



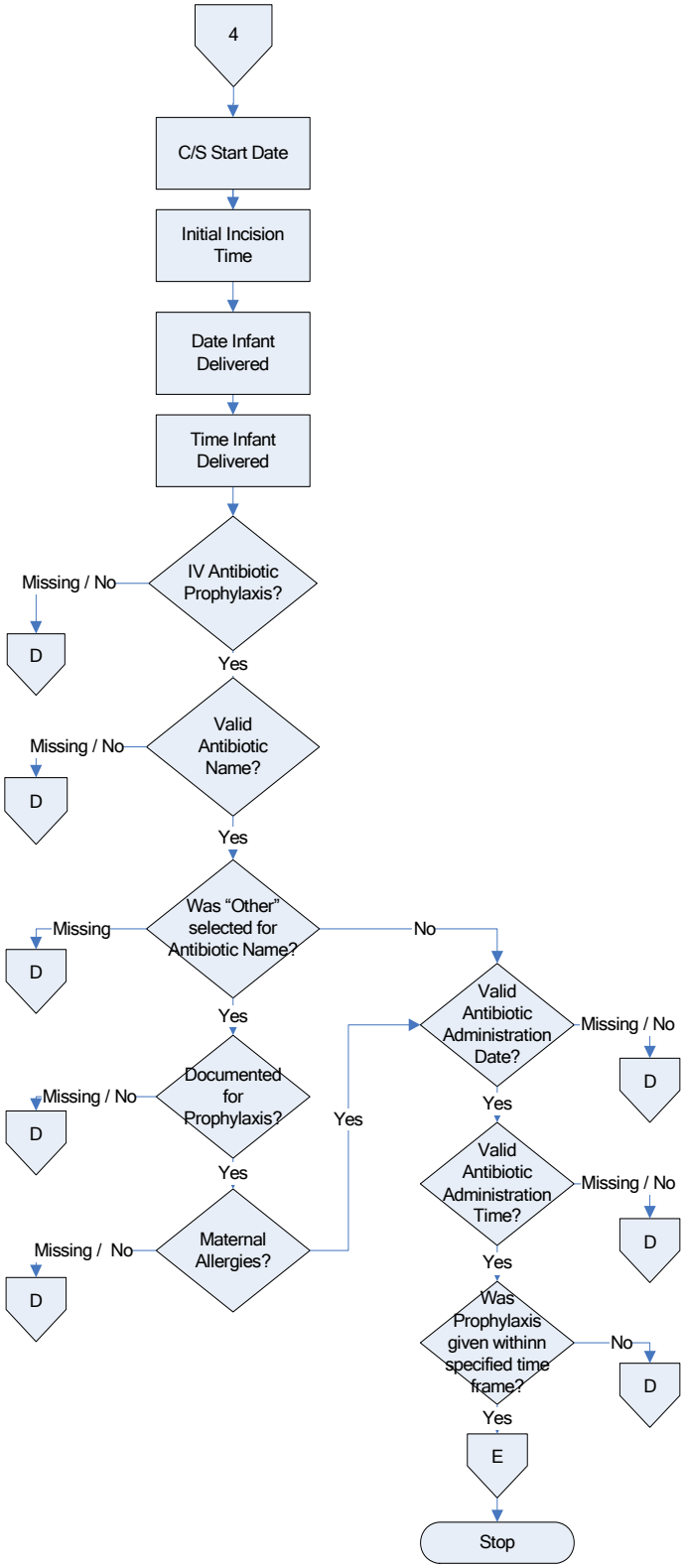
Perioperative Antibiotics for Cesarean Section (MAT 2)



Perioperative Antibiotics for Cesarean Section (MAT 2)



Perioperative Antibiotics for Cesarean Section (MAT 2)



Note:
For the measure to be calculated, one of the following pairs must be complete: C/S Start Date and Initial Incision Time or Date Infant Delivered and Time Infant Delivered. If both pairs are empty, the case is assigned to Category D.

Note:
If the Perioperative Antibiotic is administered within one hour prior to initial incision time up to 5 minutes after infant delivery time, the case will be assigned to Category E.

X

Review Ended
Not in Measure Population
Missing or Invalid Data
Case will be Rejected

B

Review Ended
Not in Measure Population
Excluded from Numerator and Denominator

D

Review Ended
In Measure Population
Excluded from Numerator
Included in Denominator

E

Measure Met
In Measure Population
Included in Numerator and Denominator

C. Neonatal Intensive Care - Antenatal Steroids Measure (NICU-1)

All Hospitals that are eligible to report on the inpatient neonatal measure must use the data collection and reporting guidelines provided in this section. Only Hospitals that have a neonatal intensive care unit should report on this measure.

1. **Measure Specifications**: Hospitals should reference the clinical specifications outlined in the *Leapfrog Group Nationally Endorsed Process Measures Specifications* (version 5.0.2) for collecting and reporting data on this measure available at URL: https://leapfrog.medstat.com/pdf/process.pdf.

   This includes the instructions contained in the Leapfrog Group Manual, under frequently asked questions (FAQ's) section, associated with NICU-1 indicator and relevant updates applicable to the discharge periods required in RY2009 Appendix G reporting.

   The Leapfrog Group Specifications, published on August 5, 2008 (vers 5.0.2), state both conditions of birth weight (< 1500 grams and gestational age between 24 to 32 weeks and six days) are required for inclusion in the measure. **MassHealth reporting will continue to allow hospitals to submit data where only one of these conditions are present**.

2. **Measure Flowchart.** This section provides the NICU measure algorithm flowchart (see ***next page***) to guide data collection of the clinical and administrative data elements required in the Leapfrog Group measure specifications. The NICU measure flowchart includes the required clinical and MassHealth unique identifier data elements that must be captured as part of data abstraction and eliminate the need for any additional data crosswalk files.

3. **Data Dictionary.** This manual provides a data dictionary for the NICU measure that includes definitions, allowable values, and formatting of all required clinical and administrative data elements in ***Appendix A-13***.

4. **Data Abstraction Tool**: This manual provides a paper data abstraction tool to assist Hospitals in abstracting the NICU measure specifications in ***Appendix A-4.*** Although the Leapfrog Group specifications refer to the infant ICD-9-CM diagnosis codes, the EOHHS measure specifications rely on documentation from the maternal chart as opposed to the infants chart.

   Therefore, unless otherwise specified, *all questions contained in the paper data abstraction tool pertain to the mother, including the clinical trial question*. The NICU data dictionary has been modified to make clearer the information that must be captured as part of data abstraction.

5. **Sampling Requirement**: This manual outlines the MassHealth sample size requirements for the NICU-1 measure. Refer to the Section 4 of this manual for details.

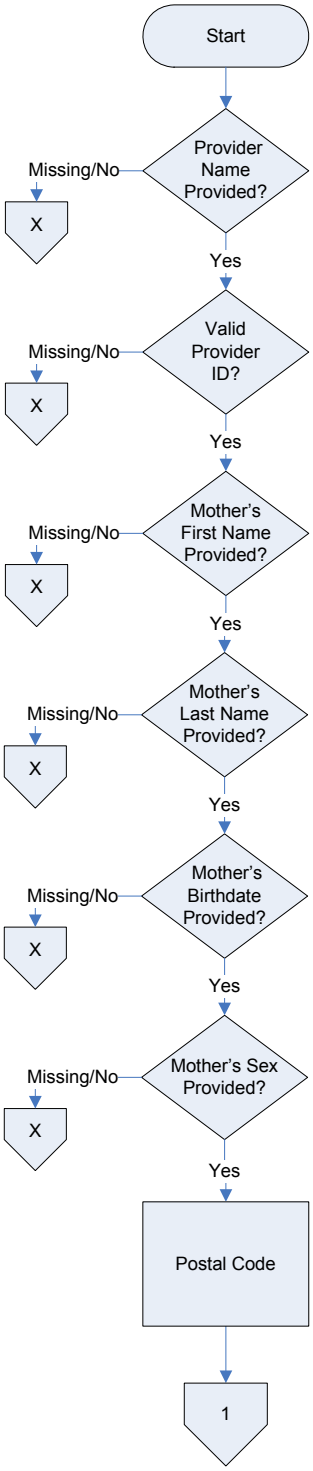
6. **XML File Format**: This manual provides an XML Schema for the NICU measure, in ***Appendix A-9***, to assist Hospitals in formatting electronic data files. The XML Schema includes the required clinical and administrative (MassHealth unique identifiers) data elements that must be captured as part of data abstraction, thus eliminating the need for any additional XML crosswalk data files.

7. **Data reported as**: Aggregate rate generated from count data reported as a proportion. Refer to ***Appendix A-16*** for the calculation rules that apply to this measure.

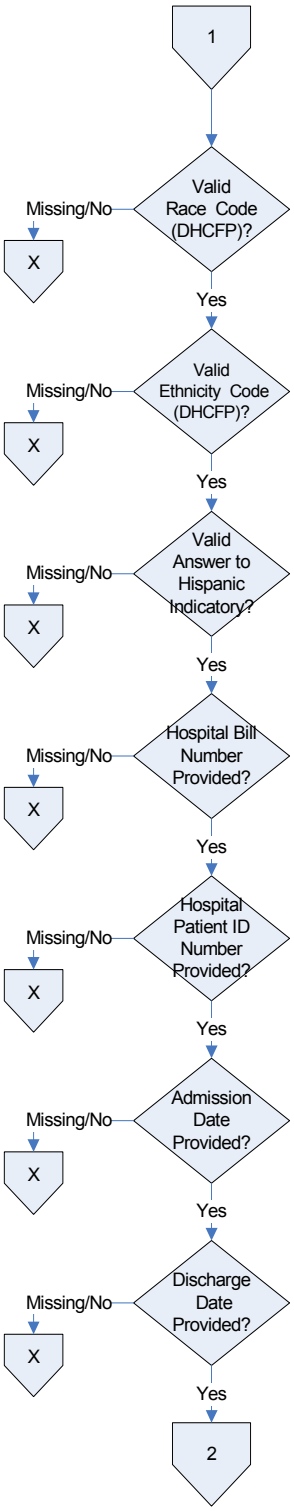
Neonatal Intensive Care - Administration of Antenatal Steroids

***Numerator:** The number of mothers receiving antenatal steroids (corticosteroids administered IM or IV) during pregnancy at any time prior to delivery of a very low birth weight infant

***Denominator:** Total number of mothers who delivered very low birth weight infants

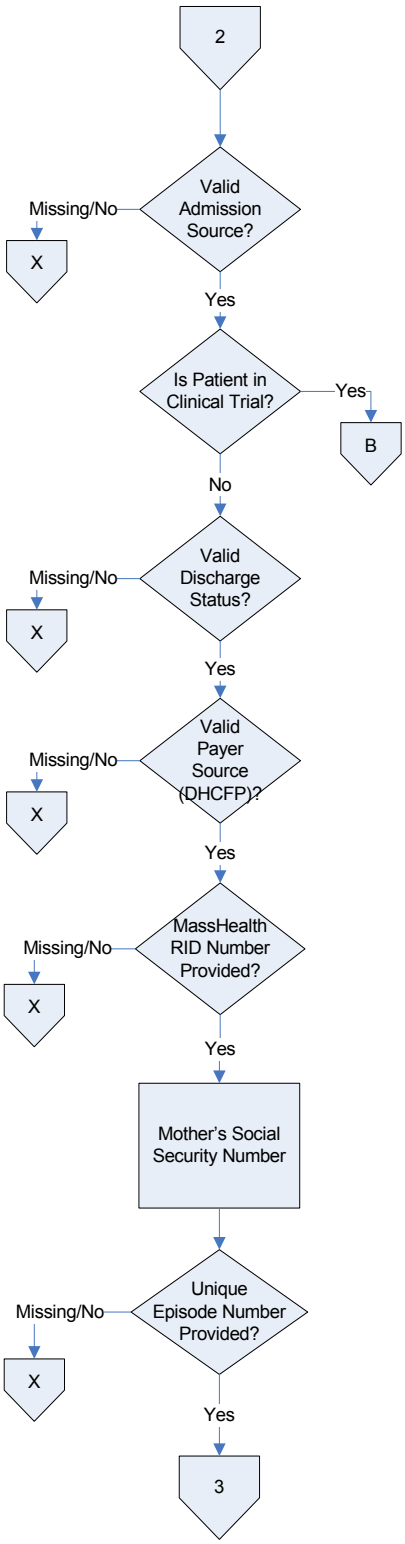


Neonatal Intensive Care - Administration of Antenatal Steroids

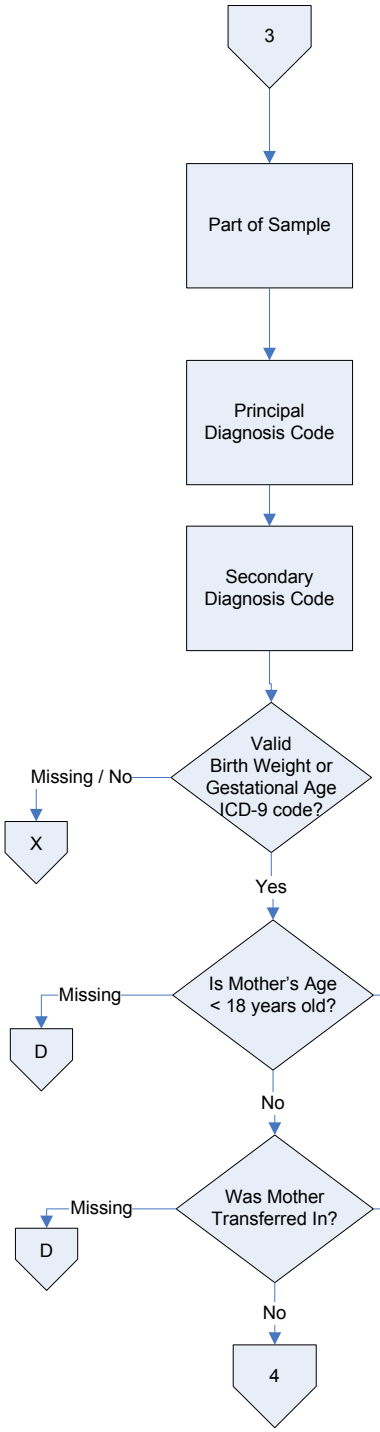


Note:
Data elements for the NICU measure are collected from the mother's chart, except for the NICU measure ICD-9-CM Diagnosis Codes.

Neonatal Intensive Care - Administration of Antenatal Steroids

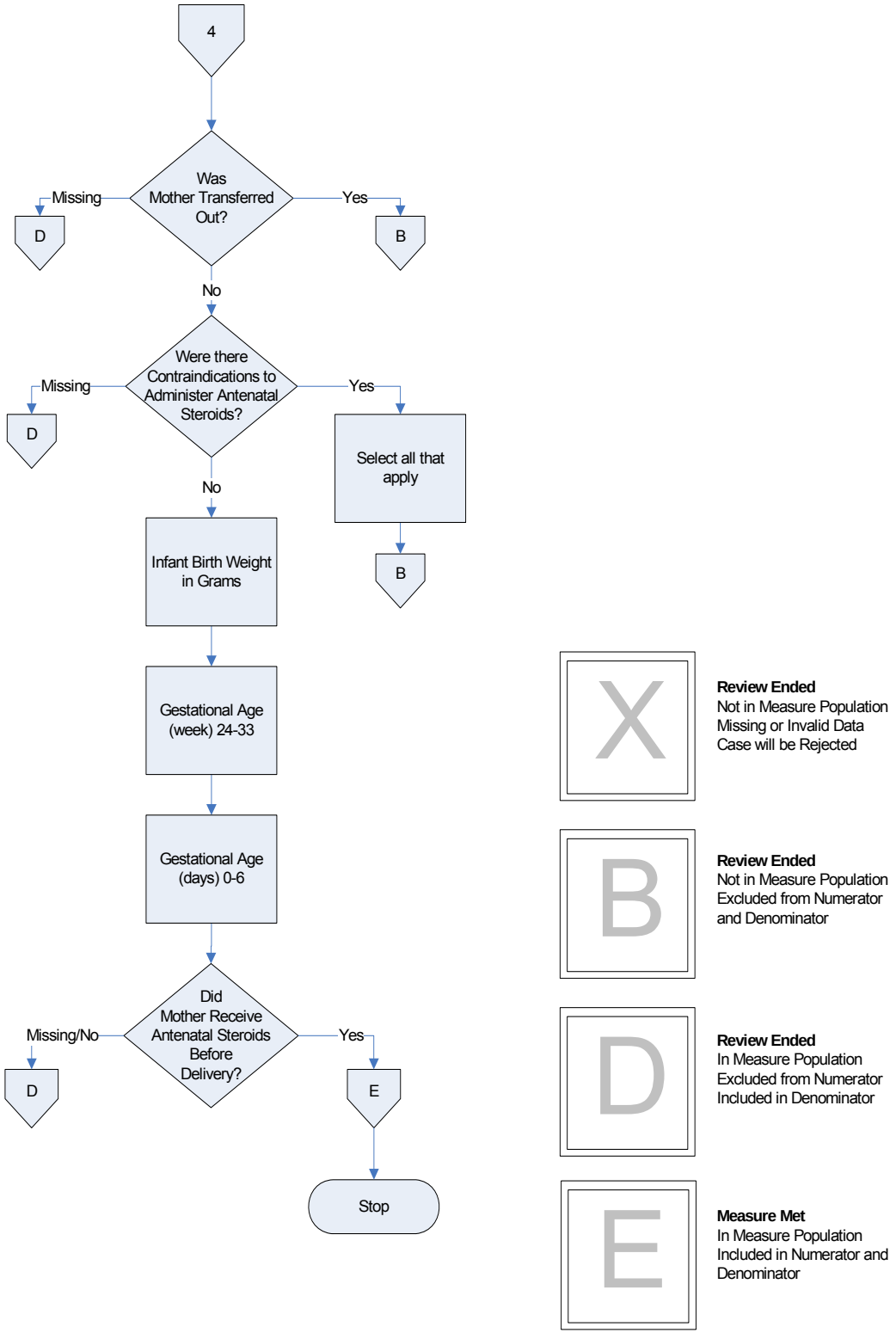


Neonatal Intensive Care - Administration of Antenatal Steroids



Note:
Use the Baby's medical record to identify principal and secondary diagnosis codes.

Neonatal Intensive Care - Administration of Antenatal Steroids



D. National Hospital Quality Measures Reporting Requirements

All Hospitals that are eligible to report on the national hospital quality measures for community acquired pneumonia, surgical infection prevention and pediatric asthma measures must apply the data collection and reporting guidelines outlined in this section.

1. **Community Acquired Pneumonia (PN)**
   a) **Measure Specifications and Flowchart:** Refer to the *Specifications Manual for the NHQM* (2.3b, 2.4b, **2.5b**) and relevant updates available at http://www.qualitynet.org for preparing data files on this measure.
   b) **Data Dictionary:** Refer to manual cited in 1.a above for data element definitions that apply.
   c) **Data Abstraction Tool:** Refer to manual cited in 1a above.
   d) **Sampling Requirement:** Refer to **Section 4** for MassHealth sampling requirement that apply.
   e) **XML File Format.** This manual provides an XML schema for the MassHealth Crosswalk File in ***Appendix A-11*** to assist Hospitals in collecting the required MassHealth identifier data elements that must be included as part of the data files.

2. **Surgical Care Infection Prevention (SCIP**)
   a) **Measure Specifications and Flowchart:** Refer to the *Specifications Manual for the NHQM* (v. 2.3b, 2.4b, **2.5b**) and relevant updates at http://www.qualitynet.org for preparing data files on this measure.
   d) **Data Dictionary:** Refer to manual cited in 2.a above for data element definitions that apply.
   e) **Data Abstraction Tool:** Refer to manual cited in 2.a above.
   f) **Sampling Requirement:** Refer to **Section 4** for MassHealth sampling requirement that apply.
   g) **XML File Format:** This manual provides an XML schema for the MassHealth Crosswalk File in ***Appendix A-11*** to assist Hospitals in collecting the required MassHealth identifier data elements that must be included as part of the data files.

3. **Pediatric Asthma Measures (CAC)**
   a) **Measure Specifications and Flowchart:** Refer to the *TJC Current Specifications Manual for the NHQM* (vers. 2.3, 2.4b, **2.5b**) at http://www.jointcommission.org and the *Specifications Manual for the NHQM* (vers. 2.4b, 2.5a) at http://www.qualitynet.org for preparing data files on this measure.
   b) **Data Dictionary:** Refer to manual cited in 3.a above for data element definitions that apply.
   c) **Data Abstraction Tool:** This manual provides a paper data abstraction tool to assist Hospitals in abstracting the CAC measure specifications in ***Appendix A-5.*** The tool includes the required MassHealth unique identifier data elements that must be captured as part of abstraction thus eliminating the need for any additional data crosswalk file.
   d) **Sampling Requirement:** Refer to Section 4 for MassHealth sampling requirement that apply.
   e) **XML File Format:** This manual provides XML schema, in ***Appendix A-10*** to assist Hospitals in collecting the required MassHealth identifier data elements. Hospitals must use the XML schema provided by EOHHS in place of the national XML schema for these measures. This file includes adjustments for the MassHealth unique identifiers not contained in the CMS or TJC schema that must be included, thereby eliminating the need for any additional crosswalk files.

Refer to additional instructions provided in Section 2 and 5 of this manual that apply to collecting and reporting the above measures data that must be included as part of the MassHealth Payer files.

Section 4. Measure Population and Sampling Specifications

This section defines the measure population and sampling specifications for the MassHealth P4P measures reporting requirement. The definitions contained in this section align with the principles and standards set forth in the national manuals, wherever possible, to minimize data collection burden.

A) Definition of Measure Population. The *Specifications Manual for the NHQM* refers to the 'Initial Patient Population' (also termed ICD Population) as all patients who share a common set of administrative data elements (payer source, ICD-9-CM diagnosis codes, age) or other characteristics for a given condition from which the sample must be drawn and represent.

For the MassHealth P4P measures reporting requirement, the term '***MassHealth ICD Patient Population'*** is used to refer to all patients who share the common administrative data elements (Medicaid payer codes 103, 104, age) and ICD-9-CM diagnosis and procedure codes eligible to be sampled for the discharge periods required in RY2009 Appendix G. All relevant ICD-9-CM codes must be identified prior to sampling, applying data integrity filters, measure exclusions and application of sampling methods.

B) Sampling Methodology. Sampling is the process of selecting observations from a patient population in order to estimate the hospitals performance without collecting data for the entire eligible population. A well designed sample is based on a selection of cases that provides sufficient information for calculating measure rates. Sample size must be carefully determined and cases randomly selected to ensure meaningful and valid sample-based performance measures data.

1. **Order of Data Flow**. The order of data flow for selecting cases involves the following steps:
   a. Identifying the '***MassHealth ICD Patient Population'*** using definitions and specifications outlined in section 4.A above and Section 2.A of this manual;
   b. Pulling a sample of medical records for each measure set based on sample size requirements provided in Tables below and abstracting specific data elements needed for each measure set; and
   c. Following either simple random sampling or systematic random sampling approaches described below.

   Sampling is done by quality measure set using available databases that contain all discharges for the required submission quarter. Hospitals may sample their population or report their entire population if desired. However, hospitals whose '***MassHealth ICD Patient Population'*** size is less than the minimum number of cases *can not* sample and should refer to Tables provided below to determine the minimum number of cases that need to be sampled for each measure category.

2. **Sampling Approaches**. The national specifications provide sampling approaches based on all patients (Medicare & non-Medicare) that require adjustments for the MassHealth P4P measures reporting. Hospitals should apply consistent sampling techniques across the quarterly submission periods using either one of the following approaches:
   a. ***Simple random sampling***: selecting a sample size *(n)* from the population of size *(N)* so that every case has the same chance of being selected into the sample; or

   b. ***Systematic random sampling:*** selecting every k^{th} record from a population of size *N* so that a sample *n* is obtained, where $k \leq N/n$. The first sample record (i.e.: the starting point) must be randomly selected before taking every k^{th} record. This requires a two step process that includes:
      i.) randomly select the starting point by choosing a number between one and k using a table of random numbers or a computer generated random number; and then
      ii.) select every k^{th} record until the selection of the sample size is completed.

Refer to the *Specifications Manual for NHQM* version 2.4 (section 4 on p.4-11) for examples on how to apply the sampling techniques described in 2.a and 2.b above.

C) Sample Size Requirements. The sampling methodology selected to establish sample size requirements for the MassHealth P4P reporting on each measure set is based on statistical power analysis. This method enables the calculation of the minimum number of discharges necessary to detect changes in the measure rates and hospital performance data and ensure that a statistically valid sample is drawn. The following guidelines apply to MassHealth sampling specifications.

1. **MassHealth Sampling**. Hospitals must sample MassHealth inpatient paid claims and perform medical chart abstraction for the sampled claims. The number sampled by Hospitals will vary by the volume of the patients for that provider that meets the criteria for ***'MassHealth ICD Patient Population'*** conditions for each measure as defined in Section 4.A above and throughout this manual. The minimum required sample size is based on the estimated volume of MassHealth discharges per quarter for each measure is provided in Tables below.

2. **National Hospital Quality Measures**. The MassHealth sample size requirements for PN, SCIP and CAC measures differ from the national sampling specifications for these measures because they are designed to meet the MassHealth sampling specifications for a statistically valid sample.

   The SCIP and CAC sampling required by MassHealth are designed to produce aggregate rates and not intended to produce rates for several strata as required for national reporting. The aggregate rates for the SCIP (Inf-1a, 2a, 3a) and CAC (1a, 2a) measures were not designed to give the detailed information on each stratum that the NHQM sampling tables do for these measures. This was done to reduce the burden of data abstraction on hospitals. However, this approach yields sample sizes for the MassHealth SCIP and CAC requirements that are smaller than those for the national sampling requirements.

3. **Dates of Service**. Hospitals must submit measures data for all 2008 discharge quarters using the sample size requirements outlined for each measure in the Tables provided below.

Table 4.1 Sample Size for GBS Prophylaxis (MAT-1) Measure

Number of MassHealth Discharges Per Quarter (ICD Patient Population Size)	**Minimum Required Sample Size "n"**
1-29	No sampling; 100% of ICD Population is required
30-59	29
60-99	41
100-129	47
130-159	52
160-189	55
190-219	58
220-249	60
250-279	62
280-309	63
310-339	64
340-369	66
> 370	67

Table 4.2 Sample Size for Cesarean Prophylaxis (MAT-2) Measure

Number of MassHealth Discharges Per Quarter (ICD Patient Population Size)	**Minimum Required Sample Size "n"**
1-29	No sampling; 100% of ICD Population is required
30-59	30
60-99	46
100-129	54
130-159	60
> 160	65

Table 4.3 Sample Size for Neonatal (NICU-1) Measure

Number of MassHealth Discharges Per Quarter (ICD Patient Population Size)	Minimum Required Sample Size "n"
1-30	No sampling; 100% of ICD Population is required
> 30	31

Table 4.4 Sample Size for Pediatric Asthma (CAC) Measure

Number of MassHealth Discharges Per Quarter (ICD Patient Population Size)	Minimum Required Sample Size "n"
1-29	No sampling; 100% of ICD Population is required
30-59	30
> 59	46

Table 4.5: Sample Size for Pneumonia (PN) Measure

Number of MassHealth Discharges Per Quarter (ICD Patient Population Size)	Minimum Required Sample Size "n"
1-29	No sampling; 100% of ICD Population is required
30-59	30
> 59	46

Table 4.6: Sample Size for Surgical Care Infection Prevention (SCIP) Measure

Number of MassHealth Discharges Per Quarter (ICD Patient Population Size)	Minimum Required Sample Size "n"
1-29	No sampling; 100% of ICD Population is required
30-59	30
60-99	46
100-129	54
130-159	60
> 159	65

The term "no sampling" used in the above tables means that sampling does not apply when discharge volume per quarter falls in the ranges shown but rather the entire patient population is required to be sampled and must be submitted in the electronic data files.

D) MassHealth ICD Patient Population Data

Effective RY2009, Hospitals are required to submit information on the MassHealth ICD Patient Population and sample count data. This information will be used to evaluate the completeness of all files submitted in accordance with the MassHealth sampling requirements stated above. The ICD patient population data must include the following information for each measure category submitted defined as follows:

- ***ICD Population Size*** - refers to count of patient population with all relevant ICD-9-CM diagnosis and procedure codes included in the measure.
- ***MassHealth ICD Population Size –*** refers to count of patient population with all relevant ICD-9-CM diagnosis or procedure codes included in the measure with Medicaid payer codes 103 and 104.
- ***All Payer ICD Population Size*** – refers to count of patient population with all relevant ICD-9-CM diagnosis and procedure codes included in the measure with Medicare and Non-Medicare payer codes (as submitted to Hospital Compare). This data is required for PN and SCIP measures only.
- ***Sample Size*** – indicates whether or not hospital has sampled data for the time period being reported for payer source stated. If no sampling was done then enter the total sample count.

All MassHealth ICD population information must be transmitted as aggregate data using the on-line data entry form located in the secure web portal. Only Hospitals, not data vendors, are authorized to enter ICD data via the portal. Failure to comply with on-line data entry will result in the information being credited as not received. An example of the on-line data entry form is provided in ***Appendix A-6*** of this manual. Refer to **Section 5.3** for detailed instructions on data entry requirements and transmittal deadlines.

Section 5. Data Transmittal Guidelines

This section outlines the revised standards and guidelines for the transmittal of RY2009 Appendix G measures reporting requirements. Hospitals must comply with all instructions provided in this section for preparing and successfully submitting performance measures data.

A. Clinical Data XML File Format. All clinical measures data must be submitted as electronic files using the required XML file format and schemas as follows:

1. Clinical data files for Maternity (MAT), neonate (NICU) and pediatric asthma (CAC) must use XML schema file layouts provided in the ***Appendix A-8 to A-10*** of this manual.

2. Clinical data files for Pneumonia (PN) and surgical care infection prevention (SCIP) must use the XML schema in national specifications manuals *plus* the XML schema file format for the MassHealth Identifier Crosswalk provided in ***Appendix A-11*** of this manual.

Each XML file may contain data for only one admission per each provider Hospital on each of the measures you are eligible to report on.

B. Electronic Data Submission Contents. Each measure set must be submitted in separate data files as described below:

1. **MassHealth Payer File**: This file should include all the measures data the hospital is eligible to report on for the required discharge periods and quarters stated in the RY2009 Appendix G. This file should contain all required clinical and administrative data elements for the MassHealth records sampled for each measure, as defined in **Section 4** of this manual.

2. **MassHealth Identifier Crosswalk File:** This file should include all unique patient identifier administrative data elements, as defined in **Section 2** and the data dictionary in this manual. This file is required *only* for the PN and SCIP measures to ensure that data files pulled from national databases have a corresponding MassHealth patient identifier record. All PN and SCIP clinical data files submitted without a corresponding MassHealth Identifier Crosswalk file will be rejected by the web portal.

3. **MassHealth ICD Population Data.** Hospitals are also required to submit aggregate ICD population data as defined in **Section 4.D** of this manual. This data must include the total counts related to each quarterly submission cycle due for the measures being reported in the electronic clinical data files. If the hospital has no cases to report during a given quarter then zero's (0) must be entered in the fields provided on the on-line data entry form. Failure to enter zero's will render the Hospital having missing data resulting in non-compliance status. All ICD data must be reported via the secure web portal using the on-line data entry form only visible after you have logged into the system. The ICD data should be submitted within fifteen (15) days prior to the close of each RFA submission deadline and can be edited or updated up until the final submission due dates.

4. **Data Transmittal Process.** Hospitals must submit all required data via the secure web portal described in **Section 5**. Data is not accepted in formats other than those described above. A summary of the required data submission contents is provided below.

Table 5.1: Summary of Electronic Data Submission Contents

Measures	MassHealth Payer File	MassHealth Crosswalk File	ICD Population Data
MAT-1	**YES**	**NO**	Enter aggregate ICD data for each measure.
MAT-2	**YES**	**NO**	
NICU-1	**YES**	**NO**	
CAC-1a	**YES**	**NO**	
CAC-2a	**YES**	**NO**	
PN (PN-1, 3b, 4, 5c, 6)	**YES**	**YES**	
SCIP (Inf-1a, 2a, 3a)	**YES**	**YES**	

Data files that contain incorrect, partial information or do not contain all the required data elements to calculate measurement categories will be rejected by the portal. Hospitals can not request a resubmission to correct data files after the portal has closed. Failure to comply with the technical requirements described in this manual will result in data being credited as not received by the portal.

All electronic data files containing the appropriate discharge quarters must be received by the close of business day (**5 pm EST**) for each submission cycle due date stated in RY2009 Acute Hospital RFA Appendix G**.** ***No extension of deadlines will be granted*.** Hospitals that do not submit data for the designated quarter period by the submission due dates will not be eligible to receive incentive payments.

C. MassQEX Web Portal Features and Requirements. EOHHS has designated the "*MassHealth Quality Exchange*" (MassQEX) as the secure portal, to be managed by the Masspro vendor, for submitting all required electronic measures data files and information as outlined in Section 5 in this manual. The URL address for the MassQEX website is: **http://www.mass.gov/masshealth/massqex**. This portal is the only approved method to securely transmit private data files between the Hospitals and the EOHHS contractor (Masspro vendor).

The MassQEX web portal is designed to resemble features from existing websites for national hospital data collection projects in order to leverage as many existing tools, formats and knowledge as possible. The portal is divided into three sections: user accounts, portal system requirements for submission and reporting repository as described below.

1. **User Accounts.** All Hospitals must set up user accounts to access the secure web portal. The EOHHS contractor will set up and configure all MassQEX user accounts.

   a) ***Registration Process***: below are the steps to register a new user:

   - Each hospital must identify the individual users that will be authorized to submit and conduct all data transactions on the Hospitals behalf. The users can be individuals from hospital staff and/or hospital third-party vendors.
   - There will be a maximum of two accounts per provider (e.g.: hospital or third-party vendor) identified as the 'registered user'. New users will be required to complete registrations forms on-line before being granted access to the secure web portal.
   - The new user must complete a registration form and then sign and date it in the presence of a Notary Public, who will issue the Notary's stamp and seal on the form.
   - The highest-level executive at the hospital site must sign the notarized form to authorize the individual designated to be the registered user for that site.
   - Originals of the completed registration forms must be mailed to the EOHHS contractor for the account to be created.

   b) ***Logging into the System:*** The portal provides instructions for setting up a password and is equipped with a 'forgot my password' option that will have the following functionality:

   - A temporary password, valid for one time use, will be transmitted to the user's registered email account after successfully answering three randomly selected security questions.
   - The temporary password will expire if it is not used within four hours.
   - Upon logging into the system, the user will be required to choose a new password.

2. **Portal System Requirements.** The web portal's data submission tool allows users to securely transmit data files to the web portal. Listed below are the requirements for transmitting data. Any deviation from the requirements listed below may result in data submissions not being processed.

   The System Requirements are:

   - Minimum of a Pentium II 233 MHZ or better with a minimum of 125MB free disk space
   - Windows 2000 or higher

- 64MB of RAM or higher
- High speed internet connect of 128 kbps or higher
- Internet Explorer 6 service pack 1 or higher
- Browser security level of Medium or lower
- Adequate operating system rights to allow provider sites to properly install programs and modify/edit registry entries
- Pop-ups allowed for **URL http://www.mass.gov/masshealth/massqex**.
- Java Runtime Environment (JRE) version 1.4.2_05 or higher. Available for download from **http://java.sun.com/j2se/desktopjava/jre/index.jsp**

a) **System Test**. Users can test their system's readiness by going to the MassQEX website at http://www.mass.gov/masshealth/massqex and conducting a System Test. The test will scan the system for the following information:

- JavaScript enabled browser
- Java enabled browser
- Applet enabled browser
- Java version 1.4.2_05 or higher
- Java Security Policy Files

If a system does not pass one of the scans, the user will receive instructions as to what corrective actions are needed. When a successful test has been conducted, the user will receive notification that the portal is ready to be used.

b) **Test Data.** All users are required to successfully complete a test submission for each of the reporting measures prior to uploading final production data. Certification of successful transmission is required prior to the permission being granted for final production level submissions. This certification will serve as proof that a provider's system is capable of generating properly formatted XML files based on CMS, TJC and MassHealth XML schemas.

Below is additional information about using the portal data submission tool to run test submissions:

- Test files will be processed in a near real time environment.
- The user will be able to access reports that show summary success or failure information as well as reports that provide detailed descriptions of errors detected in a test submission.
- All errors must be addressed before certification of a measure can be given.
- There is no limit to the number of test files that can be submitted.
- Test files will not be permanently stored on Masspro's servers.
- ***The portal test environment remains open throughout the entire RY2009 Appendix G contract period to allow registered users to perform ongoing tests in preparation for subsequent submission cycles*.**

c) **Uploading Final Production Data.** Providers are required to use Masspro provided upload software for the transmission of data to the web portal. The upload application provides:

- Single and multiple file data submission
- Data compression to reduce transmission sizes
- Data encryption utilizing asymmetric key pairs
- Filename
    - Name cannot exceed 45 characters
    - Filenames are limited to the following character ranges
        - a – z
        - A – Z
        - 0 – 9
    - Underscores will replace spaces in all filenames
    - Filenames containing illegal characters will not be uploaded or processed

- Upon completion of data transmissions, users will be able to run reports that show the success or failure of processing.
- Once submitted, data files cannot be deleted.
- ***The production environment does <u>not</u> remain open throughout the entire RY2009 Appendix G contract period. <u>The production environment is activated approximately 60 days prior to submission deadlines and then closed after each submission due date. Notices are sent via the MassQEX list-serve (per Section 5.D.2) to announce when the portal environment is open for data production prior to each RFA submission deadlines.</u>***

d) **Measures Transmission Specifications**. The maternity and neonate measures are supported by the portal as they have been defined by EOHHS MassHealth. The pneumonia, surgical care infection prevention and pediatric asthma measures utilize the National Hospital Quality Measure Data Transmission specification versions for use with discharge dates is listed below.

Version **2.5b**	10/01/2008 – 03/31/2009
Version 2.4b	04/01/2008 – 09/30/2008
Version 2.3b	10/01/2007 – 03/31/2008

Hospitals are responsible for accessing and collecting measures as required in these versions for the pertinent submission quarter.

3. **Report Repository.** The MassQEX web portal is equipped with an online report repository. Reports generated for existing report specifications as well as for processing of test and production level data can be viewed and printed on-line in a PDF format. Additional feedback reports that include greater detail on data completeness results will be provided throughout the year.

D. Customer Support. EOHHS provides technical support for all registered portal users. The EOHHS contractor staff is available to work with both the hospitals staff and third-party data vendors to assist in the implementation of XML specifications and technical aspects of measures data collection and data transmission procedures outlined in this manual.

1. The **MassQEX Customer Support Help Desk** features include:

   - **Help Desk Phone**: 781-419-2818 (voice messages are routed directly to support staff lines).

   - **Help Desk Email:** The designated email address to access technical support on portal related submissions and reporting is **<u>massqexhelp@masspro.org</u>.**

   - **Hours of Operation:** Support staff is available during business hours from 9 a.m. – 5 p.m. **(EST)** from Monday through Friday and will respond to any reported issue within one business day.

The EOHHS contractor support staff uses an internal ticket tracking system to log all MassQEX user issues. This system will be used to, manage and support work loads, enter contact demographics, generate e-mail based reminders and notifications, provide historical reporting, and dynamically build a support knowledge base

2. **Auto-Notification List-Serve.** In RY2009, the MassQEX website will provide an auto-notification feature for individuals that have created users-accounts and are authorized to conduct data transactions on behalf of the hospital. The list-serve will provide timely updates on portal system functionality and enhancements, including notices on status of submission production timelines and other related activities. Individuals not authorized as users may register for the list-serve by sending a request to the MassQEX Help Desk email listed above.

Section 6. Health Disparities Measure Specifications

EOHHS will continue to assess progress towards improving provider organizational Cultural and Linguistic Appropriate Service (CLAS) standards, *in addition to*, requiring clinical inpatient measures data reporting by race/ethnicity. This section provides guidelines for data collection and reporting that apply the health disparities(HD-1, HD-2) measures.

A. CLAS Measures (HD-1) Requirements. Hospital performance will be determined on the extent and scope of implementation of the CLAS standards using a measure derived from Hospital responses to the Cultural Competence Organizational Self-Assessment (CCOSA) Checklist. The CCOSA is designed to assess the level and scope of implementation practices across four organizational core functions (governance, administrative/ management, clinical service, customer relations) characteristic of quality management frameworks and principles.

Each Hospital must submit a summary CLAS progress report of no more than five (5) pages that describes current hospital-wide efforts being implemented as follows:

1) *Governance***:** describe leadership directives to guide Hospitals values and strategies that ensure equitable care, reducing disparities, and resources allocated to implement strategic plans. *Attach a copy of the hospital-wide strategic plan, outlining how CLAS directives are being met, to your report*.

2) *Administration/Management***:** describe mechanisms in place to coordinate workforce cultural competency training and evaluation, data collection/analysis of inpatient measures data by race and ethnicity. *Attach a copy of the hospital-wide cultural competency training plan, data collection policies to analyze and improve accuracy and documentation of race/ethnicity (at registration and in medial records) for quality measures data.*

3) *Service Delivery***:** describe efforts to adapt patient intake processes for items # 16 and 17 in the CCOSA Checklist to ensure patients receive care that is responsive to their cultural values. *Attach a copy of the hospitals guidelines for intake of patient cultural assessment forms used in medical records, discharge referral, and interpreter service policies*.

4) *Customer Relations:* describe efforts to elicit input from racial, ethnic and linguistic groups about experiences and satisfaction with patient care, which patient satisfactions surveys are translated, and current interagency collaborations with community groups in hospitals service area. *Attach a copy of patient satisfaction surveys that are translated and/or questions modified to get input from diverse community on CLAS*.

All CLAS measures data submitted is subject to data validation. Data validation will consist of evaluating the contents and consistency of each Hospital CCOSA Checklist item response, documentation submitted to support implementation status of the practices listed in the CCOSA, and the clinical measures data files submitted via the MassQEX website portal.

CLAS Measure Reporting Requirement. Each Hospital must submit an updated CCOSA Checklist Form and a summary CLAS progress report, no more than 5 pages, that addresses the specific areas listed above, including copies of documents requested by the due date stated in the RY2009 Appendix G. Hospitals that do not meet the submission due date will not be eligible to receive incentive payments on CLAS measures

Additional information to assist hospitals in reporting on the CLAS standards is provided in the below.

The Cultural and Linguistic Appropriate Service (CLAS) standards provide guidance on implementing specific organizational practices to enhance quality care delivery processes that contribute to reducing health disparities. Table 6.1 provides a crosswalk of national CLAS standards and the CCOSA Checklist Form required in the RY2009 Appendix G.

Table 6.1
Crosswalk of CLAS Standards to CCOSA Checklist Items

National CLAS Standards	CCOSA Functions
1. Health care organizations should ensure that patients/consumers receive from all staff members, effective, understandable, and respectful care that is provided in a manner compatible with their cultural beliefs, practices and preferred language.	SERVICE LEVEL PRACTICE
2. Healthcare organizations should implement strategies to recruit, retain and promote at all levels of the organization a diverse staff and leadership that are representative of the demographic characteristics of the service area.	GOVERNANCE, ADMIN-MGT & SERVICE LEVEL PRACTICE
3. Health care organizations should ensure that staff at all levels and across all disciplines receive ongoing education and training in cultural and linguistically appropriate service delivery.	ADMIN-MGT LEVEL PRACTICE
4. Health care organizations must offer and provide language assistance services, including bilingual staff and interpreter services, at no cost to each patient with limited English speaking proficiency at all points of contact, in a timely manner during all hours of operation.	SERVICE LEVEL PRACTICE
5. Health care organizations must provide to patients/consumers in their preferred language both verbal offers and written notices informing them of their right to receive language assistance services.	SERVICE LEVEL PRACTICE
6. Health care organizations must assure competence of language assistance provided to limited English speaking proficient patients/consumers by interpreters and bilingual staff. Family and friends should not be used to provide interpretation services (except on request by the patient/consumer).	SERVICE LEVEL
7. Health care organizations must make available easily understood patient related materials and post signage in the language of the commonly encountered groups and/or groups represented in service area.	SERVICE LEVEL PRACTICE
8. Health care organizations should develop, implement, and promote a written strategic plan that outlines clear goals, policies, operational plans and management accountability or oversight mechanisms to provide culturally and linguistically appropriate services.	GOVERNANCE LEVEL PRACTICE
9. Health care organizations should conduct initial and ongoing organizational self-assessments of CLAS related activities and are encouraged to integrate cultural and linguistic competence related measures into their internal audits, performance improvement programs, patient satisfaction assessments and outcomes-based evaluations.	ADMIN-MGT & CUSTOMER RELATIONS LEVEL PRACTICE
10. Health care organizations should ensure that data on the individual patients/consumer's race, ethnicity, spoken and written language are collected in health records, integrated into the organizations management information systems and periodically updated.	ADMIN-MGT LEVEL PRACTICE
11. Health care organizations should maintain a current demographic, cultural, and epidemiological profile of the community as well as a needs assessment to accurately plan for and implement services that respond to the cultural and linguistic characteristics of the service area.	GOVERNANCE LEVEL PRACTICE
12. Health care organizations should develop participatory, collaborative partnerships with communities and utilize a variety of formal and informal mechanisms to facilitate community and patient/consumer involvement in design and implementing CLAS related activities.	CUSTOMER RELATIONS LEVEL PRACTICE
13. Health care organizations should ensure that conflict and grievance resolution processes are culturally and linguistically sensitive and capable of identifying, preventing, and resolving cross-cultural conflicts or complaints by patient/consumers.	CUSTOMER RELATIONS LEVEL PRACTICE
14. Health care organizations are encouraged to regularly make available to the public information about their progress and successful innovations in implementing the CLAS standards and to provide public notice in their communities about the availability of this information.	CUSTOMER RELATIONS LEVEL PRACTICE

Source: U.S. Department of Health and Human Services (2001). National Standards for Culturally and Linguistically Appropriate Services (CLAS) in Healthcare. Final Report. Washington, DC: DHHS, Office of Minority Health. Available at URL: http://www.omhrc.gov/assets/pdf/checked/finalreport.pdf

B. Clinical Inpatient Measures (HD-2) Reporting Requirements. The evaluation of health disparities for all clinical measures data being reported requires Hospitals to accurately document and report race/ethnicity data elements in a consistent manner. Accurate and reliable data are necessary prior to calculating measure rates and performance scores. This section outlines instruction for preparing and submitting the race/ethnicity data elements associated with the clinical inpatient measures.

1. **Race/Ethnicity Data Collection Standard.** The DCHFP standards require hospitals to collect and report all three data elements of Race, Hispanic Indicator, and Ethnicity as follows:
   a) At least one Race, the Hispanic Indicator, and one Ethnicity must be reported per patient.
   b) Up to 3 fields are allowed for reporting Race (Race1; Race2; Race Other- free text),
   c) Up to 3 fields are allowed for reporting Ethnicity (Ethnicity1; Ethnicity 2; Ethnicity Other-free text).
   d) One field is allowed for reporting Hispanic Indicator (Yes or No).

   For data validation purposes one Race (Race 1), one Hispanic Indicator, and one Ethnicity (Ethnicity 1) must be reported per-patient file. Details for race/ethnicity data element definitions, format, and allowable values are provided in all data dictionaries of this manual.

2. **Race/Ethnicity Data Abstraction Process.** Race and ethnicity data elements may be located in hospital registration systems (e.g.: Meditech, ADT, etc.) which are designed to warehouse data for administrative reporting and not necessarily performance measures reporting. However, because data validation is based on a chart-audit level process, which relies solely on information in paper medical records, they must contain all required race/ethnicity data element allowable values in order to validate the measures being reported in the electronic clinical data files.

3. **Medical Record Data Abstraction Sources.** Copies of all paper medical records, submitted to the EOHHS contractor, must include information on all three data elements of Race, Hispanic Indicator and Ethnicity so that it is accessible to EOHHS data abstractors for validation purposes. The data elements must be clearly documented in the copy of the paper medical record submitted (i.e.: copy of the face sheet, nursing admission assessment, initial patient assessment) or include a copy of the administrative record (i.e.: registration system screen shot) for that patient. Failure to include the documentation of race/ethnicity data in any medical record submitted will result in failing data validation for that record. ***Hospitals are responsible for communicating this data submission requirement to their medical records department staff.***

4. **Race/Ethnicity Validation Standard**. Hospitals will be evaluated against 'EOHHS standard' for chart abstraction (as described in **Section 7** of this manual) by measuring agreement on the documentation of all three data elements (race, Hispanic indicator, ethnicity) for each of the clinical measures they reported on. The aim of validation is to determine how consistently hospitals document all required data elements in medical record and electronic clinical data files. Information from the 'Hospital's original' and 'EOHHS Standard' abstraction will be compared to identify matches and variances across these data elements. All race/ethnicity data elements documented in the medical record must indicate that the patient has self-reported. Clinician notes that make reference to a patient's race/ethnicity are considered invalid for data validation purposes.

5. **Clinical Inpatient HD-2 Measure Scoring.** Hospitals must meet 100% match on all three (3) data elements submitted, across all measure sets, to be considered to have "passed" validation. Any mismatch or variance will be considered to have "failed" validation. The overall agreement rate for the race/ethnicity data elements will be calculated on all four (4) quarters of data submitted. Refer to Section 7 of this manual for detailed information on scoring methods.

6. **National Core Measures Reporting.** The CMS race/ethnicity data element labels and definitions used in the national manuals differ from the DHCFP. These differences are highlighted on the Appendix A-1 tables provided in this manual. Hospitals are required to use the DHCFP race and ethnicity data element definitions and codes when reporting PN and SCIP data files using the XML Schema MassHealth Identifier Crosswalk File which adjusts for these corrections. Refer to corresponding Identifier Crosswalk data dictionary for detailed instructions.

Section 7: Data Validation Methods

All quality measures data submitted to EOHHS, via the MassQEX web portal, are required to meet validation standards along several levels. This includes passing: a) internal portal data completeness checks; b) chart level audits and; c) external portal checks to verify expectations for volume of discharges that meet ICD requirements for measures data received.

The EOHHS contractor will perform all aspects of portal and chart validation processes for inpatient measures data reported under the MassHealth P4P Initiative. All data that has been successfully submitted via the MassQEX portal are subject to the validation methods described in this section.

A. Overview of Chart Validation Process

1) The purpose of validation is to verify that the patient-level abstracted data submitted by Hospitals to MassQEX is accurate and reliable for calculating performance scores and incentive payments.

2) The EOHHS contractor will identify a sample of the Hospitals MassHealth patient-level records submitted via MassQEX, acquire copies of charts and re-abstract the measures data. Chart re-abstraction will establish the 'EOHHS Standard' for data abstraction. The 'Hospitals original' abstraction will be compared to the 'EOHHS' abstraction using methods outlined throughout this section.

3) In RY2009, data validation applies to all clinical inpatient measure sets reported for maternity, neonate, pediatric asthma, pneumonia and surgical care infection prevention. Data validation for the clinical health disparities measures will apply methods outlined in **Section 6** and **7** in this manual.

4) A random sample of 5 charts per quarter across all of the specified measure sets will be identified, by the EOHHS contractor, for each Hospital. The EOHHS contractor will re-abstract the hospital record data.

5) Hospitals achieving an overall agreement score ≥ 80% for all 4 quarters of data submitted will be considered to have "passed" validation. Hospitals with overall scores that fall below 80% will be considered to have "failed" validation. Refer to **Section 6.B.5** and **Section 7.C.1(b)** for the agreement score threshold that applies to clinical health disparities measure only.

6) Chart validation schedule:
   a. Hospitals will be notified, by the EOHHS contractor, of cases selected for chart validation within fourteen (14) calendar days following each data submission deadline.

   b. Hospitals must submit paper copies of all medical records requested within seventeen (17) calendar days of the request. The EOHHS contractor will notify hospitals, by email or telephone, if any of the requested records have not been received within four (4) calendar days of the deadline.

   c. Copies of records not received from Hospitals within seventeen (17) calendar days of the Contractor request will be deemed as failing validation for that record. The RFA requires that hospitals provide copies of records, for validation purposes, as part of P4P participation.

B. Validation Scoring Methods

1) **Validation Standard.** Hospitals will be evaluated against the 'EOHHS Standard' for chart abstraction by measuring agreement on the specific clinical and non-clinical (demographic and administrative) data elements for the measure sets listed in Section 2. Information from the 'Hospital original' and 'EOHHS Standard' abstraction will be compared to identify matches and variances across the data elements. Validation standards that apply to the clinical health disparities measures are outlined in **Section 6** of this manual.

2) **Data Element Scoring.** All data elements are categorized as scored or non-scored. Scored elements are included in the calculation of the overall validation rate. Non-scored elements are not included in the calculation of validation rates but must pass portal completeness checks and will also be used to verify that the correct medical chart was received. A summary of the data element scoring categories is provided in Table below.

Table 7.1. Summary of Data Element Scoring Categories

Scored Data Elements		**Non-Scored Data Elements**
Non-Clinical Elements: • Race (DHCFP) • Hispanic Indicator (DHCFP) • Ethnicity (DHCFP) • Hospital Bill Number	**Clinical Elements for:** • MAT-1 measure • MAT-2 measure • NICU-1 measure • CAC-1a measure • CAC-2a measure • PN measures • SCIP measures	Admission Date, Admission Source, Admission Time, Birthdate, Case Identifier, Discharge Date, Discharge Status, Episode of Care, First Name, Hospital Patient ID Number, Last Name, Patient RID Number, Payer Source, Postal Code, Provider ID, Provider Name, Sample, Sex, Social Security Number (SSN)

A full list of the clinical and administrative data elements collected for each measure set are contained in the following location:

a) ***Maternity (MAT), Neonate (NICU) and Pediatric Asthma (CAC) Measures***: Refer to the full list of clinical data elements, eligible to be scored, in each measure data dictionary (table of contents) provided in this manual.

b) ***Pneumonia (PN) and Surgical Care Infection Prevention (SCIP) Measures***: Refer to the QualityNet website at: http://qualitynet.org for the clinical data elements that apply to each of these measures. To access the QualityNet data validation overview, click on the "Hospital Inpatient Tab" and then click on the 'Data Validation' link.

c) ***Clinical Health Disparities (HD-2) Measures***. Refer to **Section 6** of this manual for details on scoring of non-clinical data elements that apply to HD-2 measures.

3) **Data Element Mismatch Reasons.** The EOHHS contractor will identify a mismatch reason for each variance observed between the data elements in the 'Hospital original' and 'EOHHS Standard' abstraction. The mismatch reason categories are provided below.

Table 7.2. Mismatch Reason Categories

Abstractor answer not found	Parent element mismatch (child element)
Abstractor missed information	Poor record copy
Acceptable match/mismatch	Unclear element definition
Data entry error	Invalid record sent
Not following abstraction guidelines	Record not received

4) **Calculating Overall Score.** The overall agreement score is the aggregate of the validation rates for all quarters of data. The overall score is the proportion of scored items in agreement divided by the total scored items rated. Confidence intervals will be calculated to determine appropriate range for estimating if a reliability threshold has been met.

5) **Validation Results Reports.** Hospitals will receive reports that provide information on quarterly results, case detail results at the data element level, and comments to improve reliability of measures reporting as appropriate. In RY09, hospitals will receive validation results twice during the rate year, once after the first two quarters (Q1, Q2) are submitted, and then after the last two quarters (Q3, Q4) are submitted. After all four quarters have been validated, the Hospital will receive their overall results report with the overall agreement score for all four quarters reported.

C. Requesting Re-Evaluation of Validation Results

Hospitals can have their original validation results considered for re-evaluation under the following conditions:

1) Basis for Re-evaluation:

a. Only Hospitals that have **not** met an overall agreement rate of ≥ 80% may request a re-evaluation of their validation results. Hospitals can request a re-evaluation of validation results for any quarter that fall below 80%.
b. For the HD-2 measure, only Hospitals that have **not** met an overall agreement rate of 100% may request a re-evaluation of their validation results. Such Hospitals can request a re-evaluation of their validation results for any quarter that fall below 100%.
c. The re-evaluation process for any quarter will be based on copies of medical records that were originally submitted, for that quarter, within the timelines stated under **Section 7.A** above.
d. Hospitals are **not** allowed to submit any new or additional documentation as part of the re-evaluation process.
e. Hospitals that failed to submit copies of the medical records requested by the EOHHS contractor within the timelines stated under **Section 7.A** above, are **not** eligible to submit a request for re-evaluation.

2) Timelines:

a. The Hospital has **10 business days** from the date of notification on their original overall validation report results to submit a written request for re-evaluation.
b. The re-evaluation process will be completed and mailed to the Hospital by the EOHHS contractor within **10 business days** from receipt of the Hospitals request.

3) Submission Format:

a. Hospitals must complete the **"*Request for Re-evaluation of Validation Results Form*"** and provide information on the data element mismatches including the rationale for the request to re-evaluate the chart abstraction results. A copy of the form is provided in ***Appendix A-7*** of this manual.
b. The request must be sent to the EOHHS contractor address and/or fax listed on the form.
c. An electronic copy of the form can be obtained directly from the MassQEX Customer Support Help Desk at: **massqexhelp@masspro.org**

4) Final Results:

a. The Hospital will receive a written report on the final re-evaluation results indicating the following responses:
    1) Whether any of the validation results have been adjusted; and
    2) Whether the overall agreement score remains below the threshold requirements outlined in **Section 7C.1(a)** and **(b)** above.

b. The final report will also provide details on data element mismatches that remain and educational comments to improve data reliability as appropriate.

Section 8: Data Dictionary

This manual includes a set of data dictionaries to assist Hospitals in collecting and reporting all required electronic clinical measures data files.

The purpose of the data dictionary is to provide detailed information and instructions on the definitions, formatting, allowable values, abstracting all clinical and administrative data elements and patient-level data required for each measure. Wherever possible, the definitions of general data elements contained in the *Specifications Manual for NHQM* (versions 2.3b, 2.4b, **2.5b**), were adopted to minimize burden in collection of quality measures data.

This manual includes the following set of data dictionaries:

- **Maternity Measures Data Dictionary (Appendix A-12)**: includes definitions for all required data elements pertaining to MAT-1 and MAT-2 measures. This information should be used in conjunction with the measure specifications, flowcharts and data abstraction tool contained in this manual. Refer to **Section 3.A** and **3.B** for other instructions that apply to these measures.

- **Neonatal Measure Data Dictionary (Appendix A-13)**: includes definitions for all required data elements pertaining to the NICU-1 measure. The information should be used in conjunction with the measures flowchart and data abstraction tool in this manual and *Leapfrog Group* measure specifications available at: http://leapfrog.medstat.com/pdf/process.pdf. Refer to **Section 3.C** for other instructions that apply.

- **Pediatric Asthma Measures Data Dictionary (Appendix A-14):** includes definitions for all required data elements pertaining to CAC-1a and CAC-2a measures. This information should be used in conjunction with the data abstraction tool provided in this manual when preparing data files on these measures. Refer to **Section 3.**D of this manual for other instructions that apply

- **MassHealth Identifier Crosswalk File Data Dictionary (Appendix A-15):** includes definitions for all required data elements pertaining to administrative and patient-level identifiers needed to supplement the MassHealth Payer Files for Pneumonia (PN) and Surgical Care Infection Prevention (SCIP) measures only. Refer to the data dictionaries for these respective measures in the *Specifications Manual for National Hospital Quality Measures* (vers. **2.3b, 2.4b, 2.5b**) for specific data element definitions and **Section 3.D** of this manual for other instructions that apply.

The data dictionaries are organized as separate appendices which contain the full set of data elements required for each measure file listed above. Each data dictionary is designed to be used in conjunction with the technical tools and resources contained in the EOHHS manual and the relevant national technical specifications manuals as specified above. The suggested data sources for abstraction, noted in all data dictionaries, while consistent with national specifications manuals, are not intended to reflect a comprehensive list. Contact the MassQEX Help Desk (718-419-2818) to clarify what other sources may be applicable to data abstractions for MassHealth measures reporting.

Revisions to data element definitions and allowable values in all data dictionaries have been made to clarify instruction. Refer to notes, after the table of contents in each dictionary, that apply to updates.

Acknowledgement. All data dictionaries contained in this manual were developed through collaboration with Masspro, Inc. and in consultation with The Joint Commission. The *Specifications Manual for National Hospital Quality Measures* (versions **2.3b, 2.4b, 2.5b**), is the collaborative effort of the Centers for Medicare and Medicaid Services and The Joint Commission. The *Specifications Manual* is periodically updated by the Centers for Medicare and Medicaid Services (CMS) and The Joint Commission. Users of the *Specifications Manual for National Hospital Quality Measures* must update their software and associated documentation based on the published manual production timelines.

Appendix A-1
Table 1. Race/Ethnicity Data Elements Crosswalk

Codes	DHCFP Allowable Values	Code	BPHC Allowable Values	Codes	CMS Allowable Values
R1	American Indian or Alaska Native	**R1**	American Indian/Alaska Native	**1**	White (persons with origins in Europe, Middle East or North Africa)
R2	Asian	**R2**	Asian	**2**	Black or African American
R3	Black or African American	**R3**	Black/African American	**3**	American Indian or Alaska Native
R4	Native Hawaiian or Pacific islander	**R4**	Native Hawaiian/Pacific islander	**4**	Asian
R5	White	**R5**	White	**5**	Native Hawaiian or Pacific Islander
R9	Other Race	**R6**	Hispanic or Latino	**6**	RETIRED VALUE (as of 7-01-05)
UNKNOW	Unknown/Not Specified	**R9**	Other Race	**7**	UTD: Unable to determine (not stated, documented, patient patient unwilling to provide)
		UNKW	Unknown/Not Specified		
Valid Entry	**DCHFP Hispanic Indicator**	Valid Entry	BPHC Hispanic Indicator	Valid Entry	CMS Ethnicity Values
Yes	Patient is Hispanic, Latino, or Spanish		See Race code R6 above & EHTN codes below	**Yes**	Patient is of Hispanic ethnicity or Latino
No	Patient is not Hispanic, Latino, or Spanish			**N o**	Patient is not of Hispanic ethnicity or Latino or unable to determine from medical record documentation

Codes	DHCFP & BPHC Ethnicity Inclusions (33 codes)			Code	CMS Hispanic Ethnicity Inclusions
2182-4	Cuban	2108-9	European	None	Cuban
2184-0	Dominican	2036-2	Filipino	None	Chicano
2148-5	Mexican, Mexican American, Chicano	2157-6	Guatemalan	None	Mexican
2180-8	Puerto Rican	2071-9	Haitian	None	Mexican-American
2161-8	Salvadoran	2158-4	Honduran	None	Other Spanish Origin
2155-0	Central American (not specified)	2039-6	Japanese	None	Central American
2165-9	South American (not specified)	2040-4	Korean	None	South American
2060-2	African	2041-2	Laotian	None	Latin American
2058-6	African American	2118-8	Middle Eastern	None	Spanish
AMERCN	American	PORTUG	Portuguese	None	White-Hispanic
2028-9	Asian	RUSSIA	Russian	None	Latino/Latina
2029-7	Asian Indian	EASTEU	Eastern European		
BRAZIL	Brazilian	2047-9	Vietnamese		
2033-9	Cambodian	OTHER	Other Ethnicity		
CVERDN	Cape Verdean	UNKNOW	Unknown/Not specified		
CARIBI	Caribbean Island				
2034-7	Chinese				
2169-1	Columbian				

Table 1 Notes: The following sources were used to compile Table 1 above and provide more detailed information:

1. Massachusetts Division of Health Care Finance Policy (DHCFP) Hospital Inpatient Discharge Data Electronic Record Submission Specifications, September 2006 available at http://www.mass.gov/Eeohhs2/docs/dhcfp/g/regs/114_1_17_hdd_data_specs.pdf.

2. Guidelines for the Implementation, Interpretation and Enforcement of the Boston Public Health Commission's Standardized Data Collection Regulation. Accessible at http://www.bphc.org/bphc/pdfs/datacollectionguidelines.pdf

3. CMS race/ethnicity definitions are contained in the Alphabetical Data Dictionary of the Specifications Manual for National HQM (versions **2.4b** and **2.5b**) available at http://www.qualitynet.org.

Appendix A-1:
Table 2 . DHCFP Hierarchy for Ethnicity Reporting

Code	Ethnicity Inclusions	Ethnicity Subcategories
2182-4	Cuban	
2184-0	Dominican	
2148-5	Mexican, Mexican American, Chicano	Mexicano, Mexican American, Chicano, La Raza, Mexican American Indian
2180-8	Puerto Rican	
2161-8	Salvadoran	
2155-0	Central American (not specified)	Costa Rican, Nicaraguan, Panamanian, Central American Indian, Belize
2165-9	South American (not specified)	Argentinean, Bolivian, Chilean, Ecuadorian, Paraguayan, Uruguayan, Venezuelan, South American Indian, Criollo, Guyana
2060-2	African	Botswanan, Ethiopian, Liberia, Namibian, Nigerian, Zairean, African also includes Angola, Benin, Burkina Faso, Comoros, Congo, Cote d'Ivorie, Djibouti, Egypt, Equatorial Guinea, Eritrea, Gabon, Gambia, Ghana, Guinea, Guineas-Bissau, Kenya, Lesotho, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Niger, Reunion, Rwanda, Sao Tome & Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Western Sahara, Zambia and Zimbabwe
2058-6	African American	
AMERCN	American	
2028-9	Asian	Bangladeshi, Bhutanese, Burmese, Hmong, Indonesian, Madagascar, Malaysian, Maldivian, Nepalese, Pakistani, Singaporean, Sri Lankan, Taiwanese, Thai
2029-7	Asian Indian	
BRAZIL	Brazilian	
2033-9	Cambodian	
CVERDN	Cape Verdean	
CARIBI	Caribbean Island	Barbadian, Dominica Islander, Jamaican, Trinidadian, Tobagoan, West Indian
2034-7	Chinese	
2169-1	Columbian	
2108-9	European	English, French, German, Irish, Italian, Scottish, European also includes Greek and Spanish
2036-2	Filipino	
2157-6	Guatemalan	
2071-9	Haitian	
2158-4	Honduran	
2039-6	Japanese	
2040-4	Korean	
2041-2	Laotian	
2118-8	Middle Eastern or North African	Assyian, Egyptian, Iranian, Iraqi, Lebanese, Palestinian, Syrian, Afghanistani, Israeli. Middle Eastern also includes: Algerian, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, Sudanese, United Arab, Emirates and Yemen
PORTUG	Portuguese	Azorean, Canarian
RUSSIA	Russian	
EASTEU	Eastern European	Armenian, Polish, Easter European also include: Albanian, Azerbijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary ,Latvia, Lithuania, Moldova, Macedonia, Montenegro, Romania, Serbia, Slovakia, Slovenia, and Ukraine
2047-9	Vietnamese	
OTHER	Other Ethnicity	
UNKNOW	Unknown/Not specified	

Table 2 Notes: This table is a supplement to the DHCFP regulations to help hospitals with mapping the ethnicity subcategories listed under the 33 ethnicity inclusion codes acceptable by DHCFP. Refer to the DHCFP website at http://www.mass.gov/Eeohhs2/docs/dhcfp/g/regs/114_1_17_hierarchy_ethnicity.pdf for a display of codes that apply to the ethnic subcategories listed in table above.

APPENDIX A-2:
Data Abstraction Tool: Intrapartum Antibiotic Prophylaxis for GBS (MAT-1)

INSTRUCTIONS: Hospitals must refer to the appropriate data dictionary for abstraction guidelines that apply to this measure. Bold italic font throughout this tool indicates updated text has been inserted.

Provider Name _____

Provider ID ___ ___ ___ ___ ___ ___ (AlphaNumeric)

First Name _____

Last Name _____

Birthdate ___ ___ -___ ___ - ___ ___ ___ ___

Sex: □ Female

Postal Code: ***What is the postal code of the patient's residence*****?** __ __ __ __ __ __ __ __ __
(Five or nine digits, HOMELESS, or Non-US)

Race Code (DHCFP) -- (Select One)

□ R1 American Indian or Alaska Native

□ R2 Asian

□ R3 Black/African American

□ R4 Native Hawaiian or other Pacific Islander

□ R5 White

□ R9 Other Race

□ UNKNOW Unknown/not specified

Ethnicity Code (DHCFP) __ __ __ __ __ __
(Alpha 6 characters, numeric is 5 numbers with – after 4th number)

Hispanic *Indicator* (DHCFP): Select One

□ No

□ Yes

Hospital Bill Number __
(Alpha/Numeric – field size up to 20)

Hospital Patient ID (i.e. Medical Record ***Number***) __ __ __ __ __ __ __ __ __ __ __ __ (Alpha/Numeric)

Admission Date ___ ___-___ ___-___ ___ ___ ___

Discharge Date ___ ___-___ ___-___ ___ ___ ___

Admission Source: ***(Point of Origin for Admission or Visit)*** (Select One Option)

□ 1. = Non-Health Care Facility point of origin

□ 2. = Clinic

□ 4. = Transfer from a hospital (different facility)

□ 5. = Transfer from SNF or ICF

□ 6. = Transfer from another Health Care Facility

□ 7. = Emergency Room (this Facility)

□ 8. = Court/Law Enforcement

□ 9. = Information Not Available

□ D. = Transfer from one distinct unit of the hospital to another in the same hospital (separate claims)

□ E. = Transfer from Ambulatory Surgery Center

□ F. = Transfer from Hospice

Was the patient involved in a clinical trial during this hospital stay relevant to the measure set for this admission?

□ Yes (Review Ends)

□ No

Discharge Status: (Select One Option)

□ 01. = Discharged to home care or self care (routine discharge)
□ 02. = Discharged/transferred to a short term general hospital for inpatient care
□ 03. = Discharged/transferred to a skilled nursing facility
□ 04. = Discharged/transferred to an intermediate care facility
□ 05. = ***Discharged/transferred to a designated cancer center or children's hospital***
□ 06. = Discharge/transferred to home under care of organized home health services organization in anticipation of covered services
□ 07. = Left against medical advice or discontinued care
□ 20. = Expired
□ 41. = Expired in a medical facility (e.g., hospital, SNF, ICF or freestanding hospice)
□ 43. = Discharged/transferred to a federal health care facility
□ 50. = Hospice - home
□ 51. = Hospice - medical facility (certified) providing Hospice level of care
□ 61. = Discharged/transferred to hospital-based Medicare approved swing bed
□ 62. = Discharged/transferred to an inpatient rehabilitation facility (IRF) including rehabilitation distinct part units of a hospital
□ 63. = Discharged/transferred to a Medicare certified long term care hospital (LTCH)
□ 64. = Discharged/transferred to a nursing facility certified under Medicaid but not certified under Medicare
□ 65. = Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital
□ 66. = Discharged/transferred to a Critical Access Hospital (CAH)
□ 70. = Discharged/transferred to another type of healthcare institution not defined elsewhere on this list

1. What is the Medicaid Payer Source? Select One Below:

	Payer Source Code	DHCFP Payer Source Description
□	103	Medicaid (includes MassHealth)
□	104	Medicaid Managed Care – Primary Care Clinician (PCC) Plan

2. What is the patient's MassHealth Recipient ID number? (All alpha characters must be upper case)

__ __ __ __ __ __ __ __ __ __

3. What is the patient's Social Security number? __ __ __ __ __ __ __ __ __

4. What is the unique measurement system-generated number that identifies this episode of care?

__ __ __ __ __ __ __ __ __

5. Does this case represent part of a sample?
   □ Yes
   □ No
6. Was there a Maternity Delivery ICD-9-CM diagnosis code selected for this record?
   □ No (Review Ends)

__ __ __ . __ __ (6, implied decimal)

7. At what time was the mother admitted to the labor and delivery unit?

   __ __:__ __ (military format – HH:MM)

8. Did the patient have a pre-natal maternal infection (not GBS) and receive an ***IV*** antibiotic ***during the intrapartum period?***

   □ Yes (Review Ends)

   □ No

9. Was a planned Cesarean Delivery performed in the absence of labor or membrane rupture?

   □ Yes (Review Ends)

   □ No

10. What was the gestational age at the time of delivery? (in completed weeks; do not round up) ___ ___ (numeric, 2 digit, no leading 0)

11. On what date was the infant delivered? ___ ___-___ ___-___ ___ ___ ___

12. At what time was the infant delivered? __ __:__ __ (military format – HH:MM)

13. Did the mother deliver a live newborn?

   □ Yes

   □ No (Review Ends)

14. Previous infant with invasive GBS disease?

   □ Yes

   □ No

15. Did the mother have GBS bacteriuria during this pregnancy?

   □ Yes

   □ No

16. The result of the mother's vaginal and rectal screening culture for GBS at 35-37 weeks was?

   Select One

   a. □ Positive
   b. □ Negative (Review Ends)
   c. □ Unknown (If selected, answer i, ii, and iii)
      i. Gestational age at delivery was < 37 weeks?
         □ Yes
         □ No
      ii. Were the amniotic membranes ruptured for 18 or more hours?
         □ Yes
         □ No
      iii. Did the mother have an intrapartum temperature of ≥100.4 (≥38.0C)?
         □ Yes
         □ No

17. Were IV antibiotics given to the mother intrapartum ***for GBS prophylaxis***?

□ Yes

□ No (antibiotic table can not be completed and Review Ends)

Select ONE:

Antibiotic Name (trade or generic) (Choice: **Penicillin**, Ampicillin, Cefazolin, Clindamycin, Erythromycin, Vancomycin, or Other (mutually exclusive)	**Antibiotic Administration Date** (MM-DD-YYYY)	**Antibiotic Administration Time** (military format – HH:MM)

18. Was "Other" antibiotic selected? □ Yes □ No

a) If yes, was "Other" antibiotic specifically documented as being used for prophylaxis?

□ Yes □ No

b) ***If "Other" was selected for antibiotic and it was documented as being used specifically for prophylaxis,*** did the patient have any allergies, sensitivities, or intolerance to beta-lactam/penicillin antibiotics, cephalosporin medications, or aminoglycosides?

□ Yes □ No

APPENDIX A- 3:
Data Abstraction Tool: Perioperative Antibiotics for Cesarean Section (MAT-2)

INSTRUCTIONS: Hospitals must refer to the appropriate data dictionary for abstraction guidelines that apply to this measure. Bold italic font throughout this tool indicates updated text has been inserted.

Provider Name _____

Provider ID ___ ___ ___ ___ ___ ___ (AlphaNumeric)

First Name _____

Last Name _____

Birthdate ___ ___ -___ ___ - ___ ___ ___ ___

Sex: □ Female

Postal Code**: *What is the postal code of the patient's residence*?** __ __ __ __ __ __ __ __ __
(Five or nine digits, HOMELESS, or Non-US)

Race Code (DHCFP) (Select One)

□ R1 American Indian or Alaska Native
□ R2 Asian
□ R3 Black/African American
□ R4 Native Hawaiian or other Pacific Islander
□ R5 White
□ R9 Other Race
□ UNKNOW Unknown/not specified

Ethnicity (DHCFP) Code __ __ __ __ __ __
(Alpha 6 characters, numeric is 5 numbers with – after 4th number)

Hispanic *Indicator* (DHCFP):

□ No
□ Yes

Hospital Bill Number __
(Alpha/Numeric – field size up to 20)

Hospital Patient ID (i.e. Medical Record ***Number***) __ __ __ __ __ __ __ __ __ __ __ __ (Alpha/Numeric)

Admission Date ___ ___-___ ___-___ ___ ___ ___

Discharge Date ___ ___-___ ___-___ ___ ___ ___

Admission Source: ***(Point of Origin for Admission or Visit)*** (Select One Option)

□ 1. = Non-Health Care Facility point of origin
□ 2. = Clinic
□ 4. = Transfer from a hospital (different facility)
□ 5. = Transfer from SNF or ICF
□ 6. = Transfer from another Health Care Facility
□ 7. = Emergency Room (this Facility)
□ 8. = Court/Law Enforcement
□ 9. = Information Not Available
□ D. = Transfer from one distinct unit of the hospital to another in the same hospital (separate claims)
□ E. = Transfer from Ambulatory Surgery Center
□ F. = Transfer from Hospice

Was the patient involved in a clinical trial during this hospital stay relevant to the measure set for this admission?

□ Yes (Review Ends)

□ No

Discharge Status: (Select One Option)

□ 01. = Discharged to home care or self care (routine discharge)

□ 02. = Discharged/transferred to a short term general hospital for inpatient care

□ 03. = Discharged/transferred to a skilled nursing facility

□ 04. = Discharged/transferred to an intermediate care facility

□ 05. = ***Discharged/transferred to a designated cancer center or children's hospital***

□ 06. = Discharge/transferred to home under care of organized home health services organization in anticipation of covered services

□ 07. = Left against medical advice or discontinued care

□ 20. = Expired

□ 41. = Expired in a medical facility (e.g., hospital, SNF, ICF or freestanding hospice)

□ 43. = Discharged/transferred to a federal health care facility

□ 50. = Hospice - home

□ 51. = Hospice - medical facility (certified) providing Hospice level of care

□ 61. = Discharged/transferred to hospital-based Medicare approved swing bed

□ 62. = Discharged/transferred to an inpatient rehabilitation facility (IRF) including rehabilitation distinct part units of a hospital

□ 63. = Discharged/transferred to a Medicare certified long term care hospital (LTCH)

□ 64. = Discharged/transferred to a nursing facility certified under Medicaid but not certified under Medicare

□ 65. = Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital

□ 66. = Discharged/transferred to a Critical Access Hospital (CAH)

□ 70. = Discharged/transferred to another type of healthcare institution not defined elsewhere on this list

1. What is the Medicaid Payer Source? Select One Below:

	Payer Source Code	DHCFP Payer Source Description
□	103	Medicaid (includes MassHealth)
□	104	Medicaid Managed Care – Primary Care Clinician (PCC) Plan

2. What is the patient's MassHealth Recipient ID number? (All alpha characters must be upper case)

   __ __ __ __ __ __ __ __ __ __

3. What is the patient's Social Security number? __ __ __ __ __ __ __ __ __

4. What is the unique measurement system-generated number that identifies this episode of care?

   __ __ __ __ __ __ __ __ __

5. Does this case represent part of a sample?

   □ Yes

   □ No

6. Was there a Cesarean section ICD-9-CM procedure code selected for this record?

   □ No (Review Ends)

   __ __ . __ __ (5, implied decimal)

7. Did the patient have a confirmed or suspected infection during this hospitalization prior to the c-section?
   □ Yes (Review Ends)
   □ No

8. Did the patient receive ***IV*** antibiotic treatment for prophylaxis within 24 hours prior to surgery? (e.g., GBS, chorioamnionitis, bacterial endocarditis).

   Select One:
   □ GBS
   □ Other prophylaxis (Review Ends)
   □ No prophylaxis

9. Were there any other procedures requiring general or spinal anesthesia that occurred within three days prior to or after the principal procedure during this hospital stay?
   □ Yes (Review Ends)
   □ No

10. On what date did the Cesarean Section start?

    ___ ___-___ ___-___ ___ ___ ___

11. At what time was the initial incision made for the Cesarean Section?

    ___ ___:___ ___ (military format – HH:MM)

12. On what date was the infant delivered?

    ___ ___-___ ___-___ ___ ___ ___

13. At what time was the infant delivered?

    ___ ___:___ ___ (military format – HH:MM)

14. Did the patient receive an I.V. antibiotic for Cesarean section ***surgical*** prophylaxis?

    □ Yes
    □ No (Review Ends)

    Select ONE:

Antibiotic Name (trade or generic) (Choice: Ampicillin, Cefazolin, Gentamycin, or Other (mutually exclusive)	**Antibiotic Administration Date** (MM-DD-YYYY)	**Antibiotic Administration Time** (military format – HH:MM)

15. Was "Other" antibiotic selected? □ Yes □ No

    a) If yes, was "Other" antibiotic specifically documented as being used for prophylaxis?
       □ Yes □ No

    b) ***If "Other" was selected for antibiotic and it was documented as being used specifically for prophylaxis,*** did the patient have any allergies, sensitivities, or intolerance to beta-lactam/penicillin antibiotics, cephalosporin medications, or aminoglycosides?
       □ Yes □ No

APPENDIX A- 4:
Data Abstraction Tool: Neonatal Antenatal Steroids (NICU-1)

INSTRUCTIONS: Hospitals must refer to the appropriate data dictionary for abstraction guidelines that apply to this measure. Bold italic font throughout this tool indicates updated text has been inserted.

Provider Name _____

Provider ID ___ ___ ___ ___ ___ ___ (AlphaNumeric)

First Name _____

Last Name _____

Birthdate ___ ___ -___ ___ - ___ ___ ___ ___

Sex: □ Female □ Male □ Unknown

Postal Code: What is the postal code of the patient's residence? __ __ __ __ __ __ __ __ __
(Five or nine digits, HOMELESS, or Non-US)

Race Code (DHCFP): (Select One)

□ R1 American Indian or Alaska Native

□ R2 Asian

□ R3 Black/African American

□ R4 Native Hawaiian or other Pacific Islander

□ R5 White

□ R9 Other Race

□ UNKNOW Unknown/not specified

Ethnicity Code (DHCFP) __ __ __ __ __ __
(Alpha 6 characters, numeric is 5 numbers with – after 4th number)

Hispanic *Indicator* (DHCFP):

□ No

□ Yes

Hospital Bill Number __
(Alpha/Numeric – field size up to 20)

Hospital Patient ID (i.e. Medical Record ***Number***) __ __ __ __ __ __ __ __ __ __ __ (Alpha/Numeric)

Admission Date ___ ___-___ ___-___ ___ ___ ___

Discharge Date ___ ___-___ ___-___ ___ ___ ___

Admission Source: ***(Point of Origin for Admission or Visit)*** (Select One Option)

□ 1. = Non-Health Care Facility point of origin

□ 2. = Clinic

□ 4. = Transfer from a hospital (different facility)

□ 5. = Transfer from SNF or ICF

□ 6. = Transfer from another Health Care Facility

□ 7. = Emergency Room (this Facility)

□ 8. = Court/Law Enforcement

□ 9. = Information Not Available

□ D. = Transfer from one distinct unit of the hospital to another in the same hospital (separate claims)

□ E. = Transfer from Ambulatory Surgery Center

□ F. = Transfer from Hospice

Was the patient involved in a clinical trial during this hospital stay relevant to the measure set for this admission?

□ Yes (Review Ends)

□ No

Discharge Status: (Select One Option)

□ 01. = Discharged to home care or self care (routine discharge)

□ 02. = Discharged/transferred to a short term general hospital for inpatient care

□ 03. = Discharged/transferred to a skilled nursing facility

□ 04. = Discharged/transferred to an intermediate care facility

□ 05. = ***Discharged/transferred to a designated cancer center or children's hospital***

□ 06. = Discharge/transferred to home under care of organized home health services organization in anticipation of covered services

□ 07. = Left against medical advice or discontinued care

□ 20. = Expired

□ 41. = Expired in a medical facility (e.g., hospital, SNF, ICF or freestanding hospice)

□ 43. = Discharged/transferred to a federal health care facility

□ 50. = Hospice - home

□ 51. = Hospice - medical facility (certified) providing Hospice level of care

□ 61. = Discharged/transferred to hospital-based Medicare approved swing bed

□ 62. = Discharged/transferred to an inpatient rehabilitation facility (IRF) including rehabilitation distinct part units of a hospital

□ 63. = Discharged/transferred to a Medicare certified long term care hospital (LTCH)

□ 64. = Discharged/transferred to a nursing facility certified under Medicaid but not certified under Medicare

□ 65. = Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital

□ 66. = Discharged/transferred to a Critical Access Hospital (CAH)

□ 70. = Discharged/transferred to another type of healthcare institution not defined elsewhere on this list

1. What is the Medicaid Payer Source? Select One Below:

	Payer Source Code	DHCFP Payer Source Description
□	103	Medicaid (includes MassHealth)
□	104	Medicaid Managed Care – Primary Care Clinician (PCC) Plan

2. What is the patient's MassHealth Recipient ID number? (All alpha characters must be upper case)

__ __ __ __ __ __ __ __ __ __

3. What is the patient's Social Security number? __ __ __ __ __ __ __ __ __

4. What is the unique measurement system-generated number that identifies this episode of care?

__ __ __ __ __ __ __ __ __

5. Does this case represent part of a sample?

□ Yes

□ No

6. Was there a principal or secondary ICD-9-CM diagnosis code indicating a birth weight of less than 1500 grams or a gestational age between 24 weeks and 0 days and33 weeks and 6 days selected for this record?

   □ No (Review Ends)

   __ __ __ . __ __ (6 , implied decimal) Principal Diagnosis Code

   __ __ __ . __ __ (6 , implied decimal) Secondary Diagnosis Code

7. Was the mother's age less than 18 years old? (Admission Date – Birth Date)
   - □ Yes (Review Ends)
   - □ No

8. Was the mother transferred in?
   - □ Yes (Review Ends)
   - □ No

9. Was the mother transferred out?
   - □ Yes (Review Ends)
   - □ No

10. Was there documentation of one or more contraindications to administer antenatal steroids to the mother?
    - □ Yes
    - □ No

    If yes, select all that apply: (If any selected, Review Stops)
    - □ Maternal thyrotoxicosis
    - □ Maternal cardiomyopathy
    - □ Active maternal infection or chorioamnionitis
    - □ Ruptured membranes and imminent delivery within 6-12 hours
    - □ Maternal thyrotoxicosis
    - □ Fetal demise
    - □ Mother with tuberculosis
    - □ Other reasons as documented by physician, nurse practitioner, or physician assistant

11. What was the infant's birth weight in grams?

    ___ ___ ___ ___ (no leading 0)

12. What was the infant's gestational age? (both weeks and days must be completed)

    Weeks:___ ___ (range 24 – 33)

    Days: ___ (range: 0 – 6)

13. Did the mother receive antenatal steroids (corticosteroids administered IM or IV) during pregnancy at any time prior to delivery of a very low birth weight infant?
    - □ Yes
    - □ No

APPENDIX A- 5:
Data Abstraction Tool: Pediatric Asthma Measures (CAC-1a *and* CAC-2a)

INSTRUCTIONS: Hospitals must refer to the appropriate data dictionary for abstraction guidelines that apply to this measure. Bold italic font throughout this tool indicates updated text has been inserted.

Provider Name _____

Provider ID ___ ___ ___ ___ ___ ___ (Alpha Numeric)

First Name _____

Last Name _____

Birthdate ___ ___ -___ ___ - ___ ___ ___ ___

Sex: □ Female □ Male □ Unknown

Postal Code: What is the postal code of the patient's residence? __ __ __ __ __ __ __ __ __
(Five or nine digits, HOMELESS, or Non-US)

Race Code (DHCFP): (Select One)

□ R1 American Indian or Alaska Native

□ R2 Asian

□ R3 Black/African American

□ R4 Native Hawaiian or other Pacific Islander

□ R5 White

□ R9 Other Race

□ UNKNOW Unknown/not specified

Ethnicity Code (DHCFP) __ __ __ __ __ __
(Alpha 6 characters, numeric is 5 numbers with – after 4th number)

Hispanic *Indicator* (DHCFP):

□ No

□ Yes

Hospital Bill Number __
(Alpha/Numeric – field size up to 20)

Hospital Patient ID (i.e. Medical Record ***Number***) __ __ __ __ __ __ __ __ __ __ __ __ (Alpha/Numeric)

Admission Date ___ ___-___ ___-___ ___ ___ ___

Discharge Date ___ ___-___ ___-___ ___ ___ ___

Admission Source: ***(Point of Origin for Admission or Visit)*** (Select One Option)

□ 1. = Non-Health Care Facility point of origin

□ 2. = Clinic

□ 4. = Transfer from a hospital (different facility)

□ 5. = Transfer from SNF or ICF

□ 6. = Transfer from another Health Care Facility

□ 7. = Emergency Room (this Facility)

□ 8. = Court/Law Enforcement

□ 9. = Information Not Available

□ D. = Transfer from one distinct unit of the hospital to another in the same hospital (separate claims)

□ E. = Transfer from Ambulatory Surgery Center

□ F. = Transfer from Hospice

Was the patient involved in a clinical trial during this hospital stay relevant to the measure set for this admission?

□ Yes (Review Ends)

□ No

Discharge Status: (Select One Option)

□ 01. = Discharged to home care or self care (routine discharge)

□ 02. = Discharged/transferred to a short term general hospital for inpatient care

□ 03. = Discharged/transferred to a skilled nursing facility

□ 04. = Discharged/transferred to an intermediate care facility

□ 05. = ***Discharged/transferred to a designated cancer center or children's hospital***

□ 06. = Discharge/transferred to home under care of organized home health services organization in anticipation of covered services

□ 07. = Left against medical advice or discontinued care

□ 20. = Expired

□ 41. = Expired in a medical facility (e.g., hospital, SNF, ICF or freestanding hospice)

□ 43. = Discharged/transferred to a federal health care facility

□ 50. = Hospice - home

□ 51. = Hospice - medical facility (certified) providing Hospice level of care

□ 61. = Discharged/transferred to hospital-based Medicare approved swing bed

□ 62. = Discharged/transferred to an inpatient rehabilitation facility (IRF) including rehabilitation distinct part units of a hospital

□ 63. = Discharged/transferred to a Medicare certified long term care hospital (LTCH)

□ 64. = Discharged/transferred to a nursing facility certified under Medicaid but not certified under Medicare

□ 65. = Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital

□ 66. = Discharged/transferred to a Critical Access Hospital (CAH)

□ 70. = Discharged/transferred to another type of healthcare institution not defined elsewhere on this list

1. What is the Medicaid Payer Source? Select One Below:

	Payer Source Code	DHCFP Payer Source Description
□	103	Medicaid (includes MassHealth)
□	104	Medicaid Managed Care – Primary Care Clinician (PCC) Plan

2. What is the patient's MassHealth Recipient ID number? (All alpha characters must be upper case)

__ __ __ __ __ __ __ __ __ __

3. What is the patient's Social Security number? __ __ __ __ __ __ __ __ __

4. What is the unique measurement system-generated number that identifies this episode of care?

__ __ __ __ __ __ __ __ __

5. Does this case represent part of a sample?

□ Yes

□ No

6. Was there a principal ICD-9-CM diagnosis code of Asthma selected for this record?

□ No (Review Ends)

__ __ __ . __ __ (6 , implied decimal)

7. At the time of discharge was the patient's age 2 years through 17 years?

□ Yes

□ No (Review Ends)

8. Is there documentation of contraindications/reasons for not prescribing relievers during this hospitalization?

□ Yes ***(Go to question 10)***

□ No

9. Did the patient receive a reliever medication(s) during this hospitalization?

□ Yes

□ No

10. Is there documentation of contraindications/reasons for not prescribing oral or intravenous corticosteroids during this hospitalization? ?

□ Yes (Review Ends)

□ No

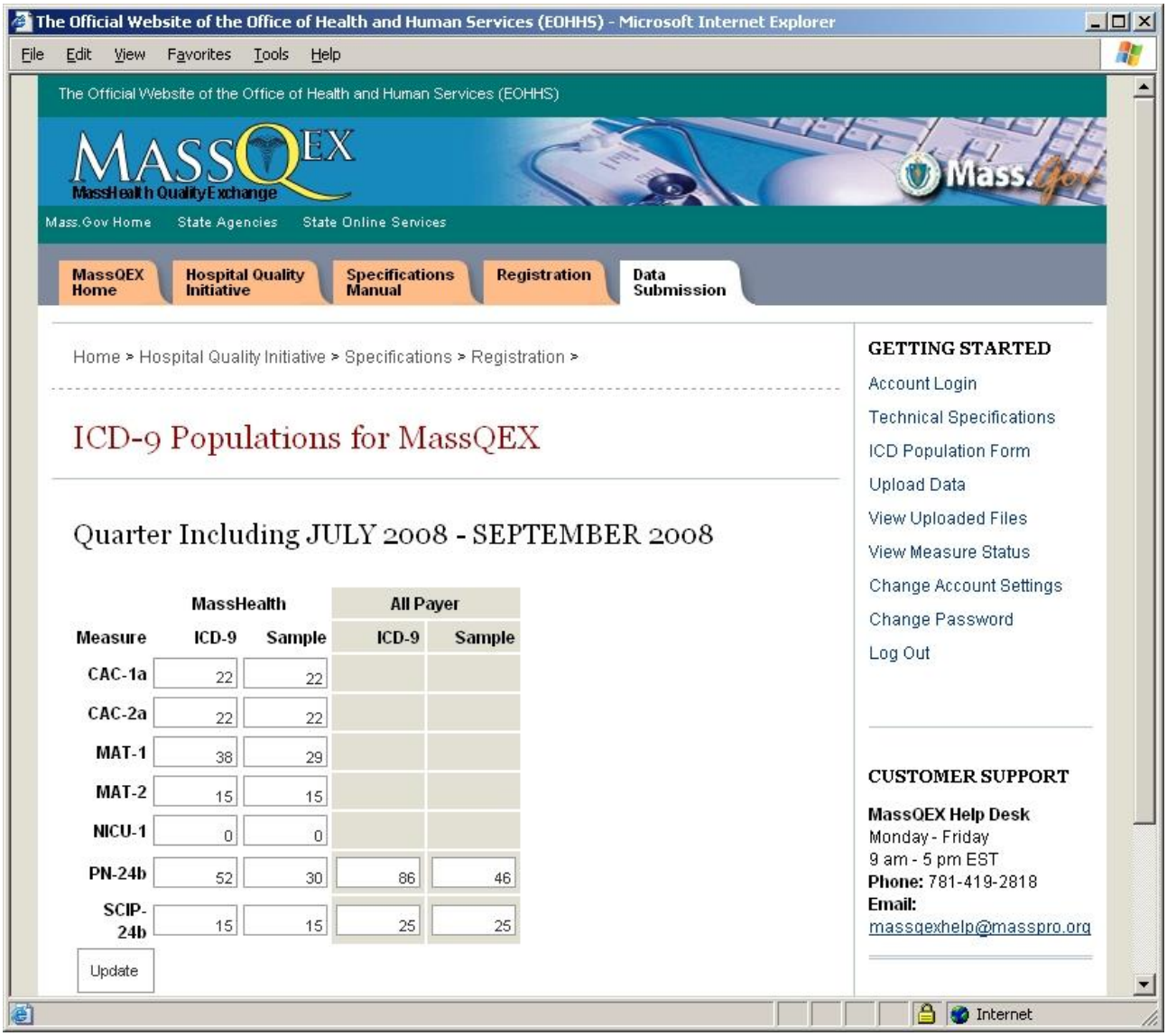
11. Did the patient receive oral or intravenous corticosteroids during this hospitalization?

□ Yes

□ No

Appendix A-6:
MassHealth ICD Population On-line Data Entry Form

This appendix provides a screen shot of the electronic ICD Population Data Form housed in the MassQEX secure website that is only visible after the Hospital user has logged into the system. As shown below, the form displays information on quarter reporting periods that apply, data entry fields for ICD total counts and sample size of each measure by MassHealth and All Payer data.



Footnote Instructions:

- Refer to **Section 4.D** for definitions of MassHealth vs. All Payer ICD data and sample size.
- All ICD data entry fields must be completed, for each submission deadline, regardless of case volume. See **Section 5.B** for instructions that apply to the entry of zero or no cases.
- **Example**: The above screenshot illustrates a data entry form that is properly filled out in order to be in compliance with data entry requirements. It includes zeros for the NICU-1 measure.

Appendix A-7
MassQEX Request for Re-evaluation of Validation Results Form

INSTRUCTIONS: Hospitals must complete this form when the validation results are <.80. Submit this form **no later than 10 business days** after the date of notification of the Hospitals original validation report results by postal mail or FAX to:

MASSPRO, INC.
Attention: MassHealth Quality Exchange (MassQEX)
245 Winter Street Waltham, MA 02451-8709
(Fax: 781-290-5784)

Hospital Name: _____ **MassHealth Provider ID:** _____

Hospital Quality Contact Name: _____ **Telephone: (___)_____Validation Qtr/Year ____/___**

For internal use only
Hospital Completion Date: ____/___/____ **Date Masspro Received: ____/___/____** **Timely: __ Yes ___ No**

Please enter all information requested below for each data element.

Med Record #	MP Validation Control # (Listed on case detail report)	Discharge Date	Measure ID #	Data Element Name (Listed on case detail report)	Hospital Rationale (Explain reason for the data element mismatches. Information not originally provided will not be considered as part of re-evaluation)